SVR-800 Series NVR
User's Manual

8/16CH Full HD Network Video Recorder with Dual Display

Version 1.0.0

11282013

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LED & Buttons Definitions

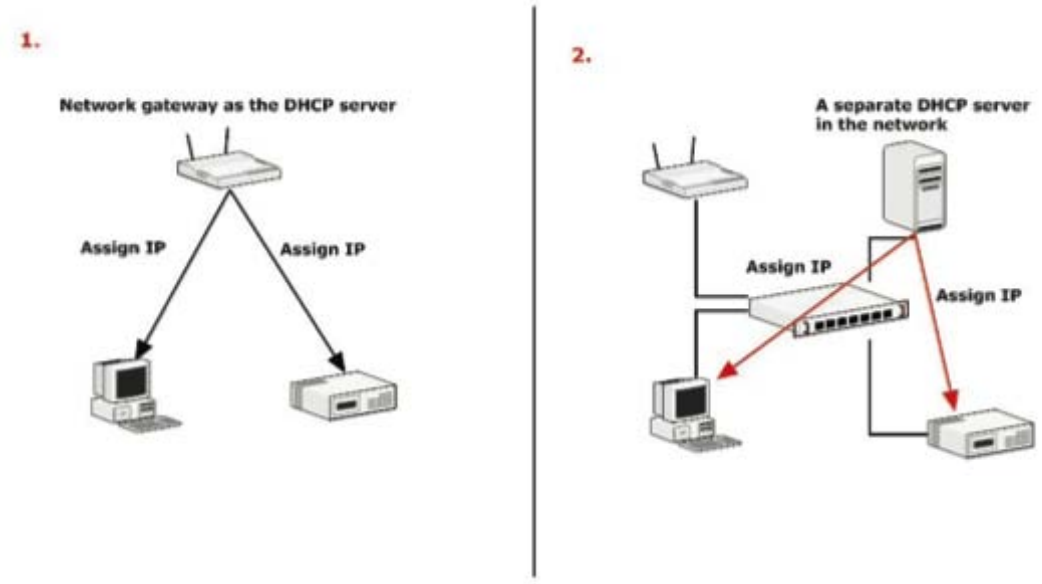
LEDs	Status	Definitions
HDD x 2	Green	Solid green when the HDD is mounted
	Red	Solid red for disk fail
	Amber	*Solid amber when recording is in process *Blinking when recycling
Network	Green	Solid green for activity on a 10/100Mbps network
	Amber	Solid amber for activity on a 1Gbps network
Status	Green	*Shows solid green for normal operation *Blinking green when firmware upgrade is done
	Red	Blinking red for failed firmware upgrade through USB disk
	Amber	Blinking amber during firmware upgrade
Power	Green	*Solid green - Normal operation *Slow blinking in green after press and hold the reset button for 5 seconds indicates the device will enter the restore default process. Other LEDs remain unchanged during this state.
	Red	System off (power cord remains plugged in)
	Amber	*Fast blinking in amber during system initializing/starting. Continous blinking when system is unable to start properly (All other LEDs should be off when this LED is blinking in amber) * Slow blinking indicating the system is shutting down. Other LEDs go off according the stage of the process.
Alarm	Red	Blinking in red when a system/camera event occurs. Blinking should last 10 seconds for each event
	None	Goes off if reaches the 10-second duration, or when buzzer stop button is pressed (if buzzer is triggered)
Buttons		
Power btn	ON	Press and hold for 2 seconds
	OFF	Press and hold for 2 seconds
Reset	Restore default	Press and hold for 5 seconds
	Restart	Press and hold for 2 seconds
Buzzer stop	STOP	Press and release should stop buzzer right away
Buzzer		
Beep	Complete start	Beep once (indicating the system is fully started)
	Initiating restart	Beep once (Indicating the restart process has begun)
	Initiating shutdown	Beep once (Indicating users to release the Power button as the shutdown process has begun)

Connect to the NVR

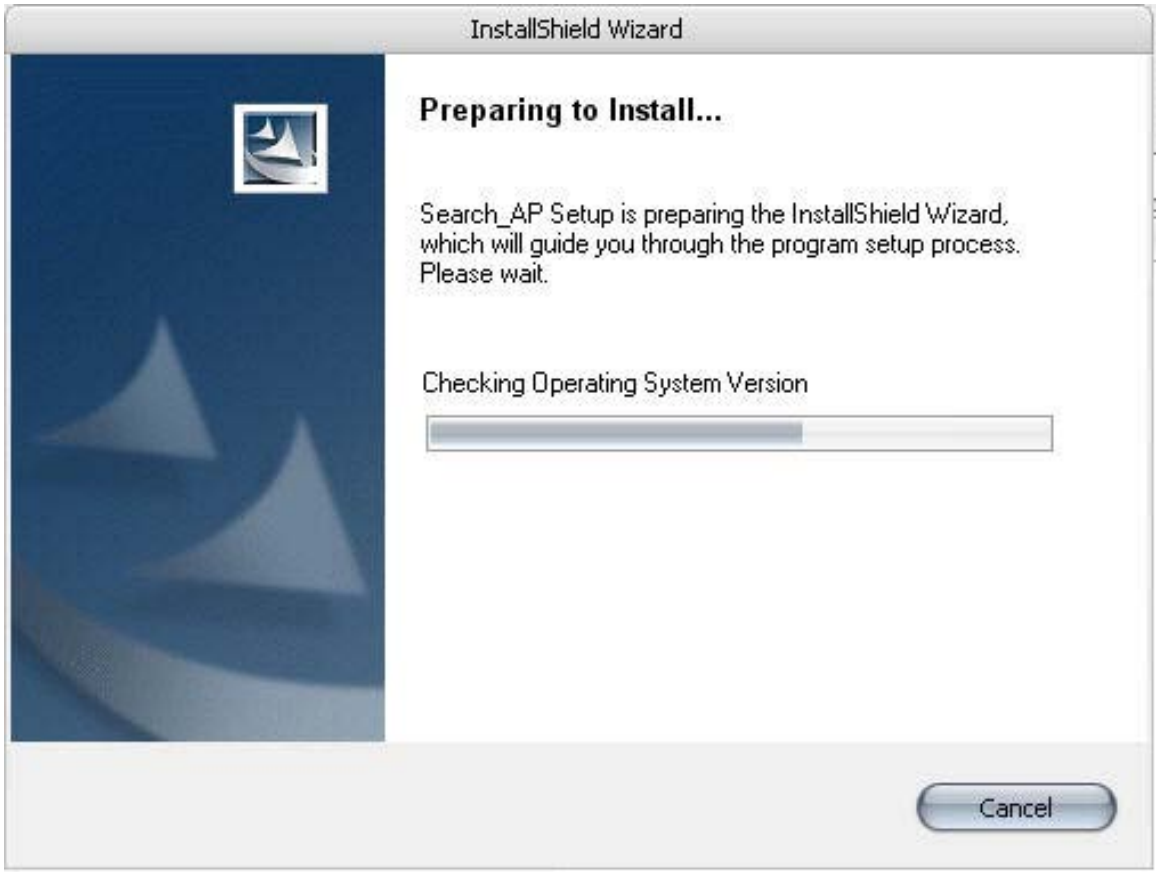
There are various ways you can connect to the NVR and below are the suggested methods for different network setup:

- The NVR is placed in a network with a DHCP server: Connect to the NVR by using **"NVR Search" Utility**
- The NVR is placed in a network without DHCP server (or you are connecting to it directly): **Access the NVR with its default IP**

Use NVR Search Utility



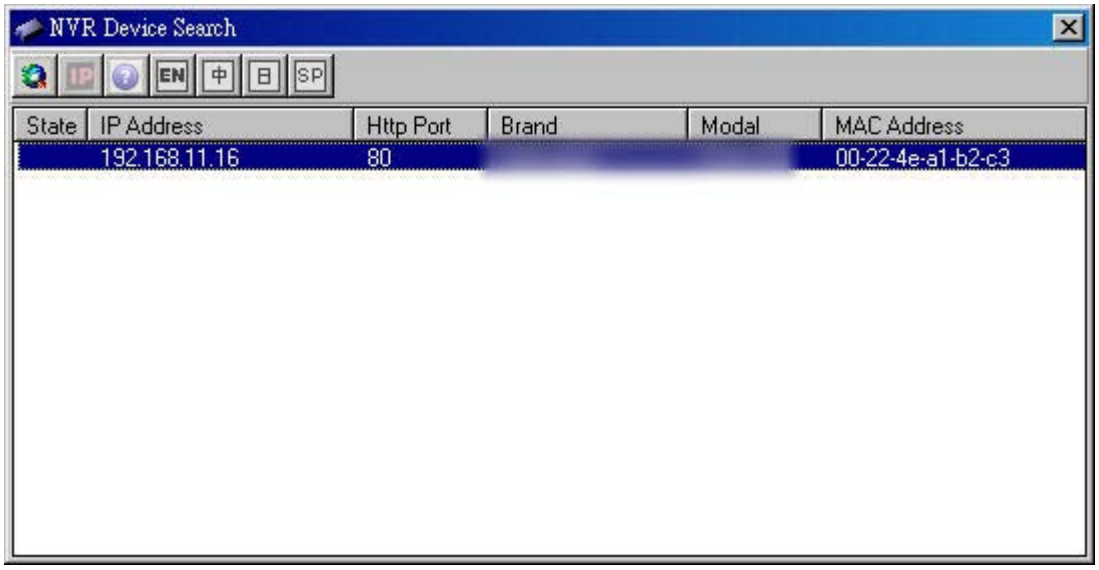
If the NVR is placed in a corporate network or a local area network where a DHCP server is already presented, run the "NVR Search" utility from a computer that is on the same network and locate the NVR with its IP address that is assigned by the top-level DHCP server.


InstallShield Wizard
Preparing to Install...
Search_AP Setup is preparing the InstallShield Wizard, which will guide you through the program setup process. Please wait.
Checking Operating System Version
Cancel

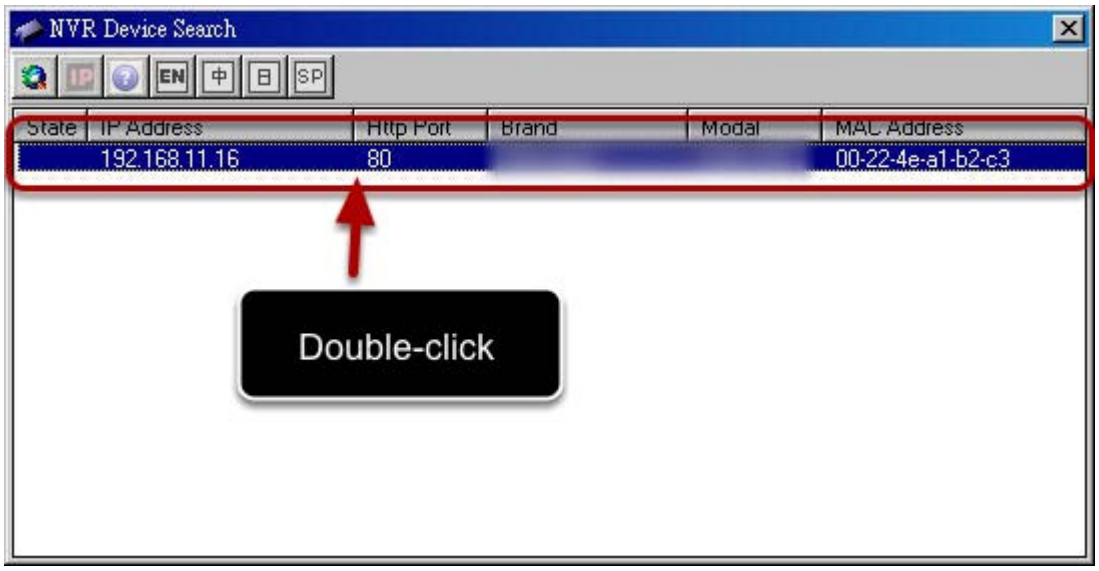
To begin, launch the "NVR Search" utility from the CD and proceed with the installation:

Once the installation is complete, check the "Launch the Search AP" option and click "Finish".

The search should start automatically and its status should be displayed.



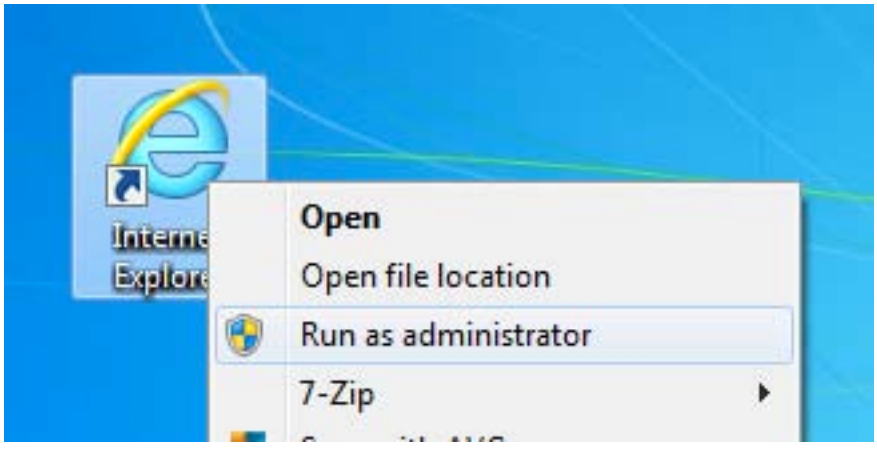
The NVR should be located and its IP address should be displayed.



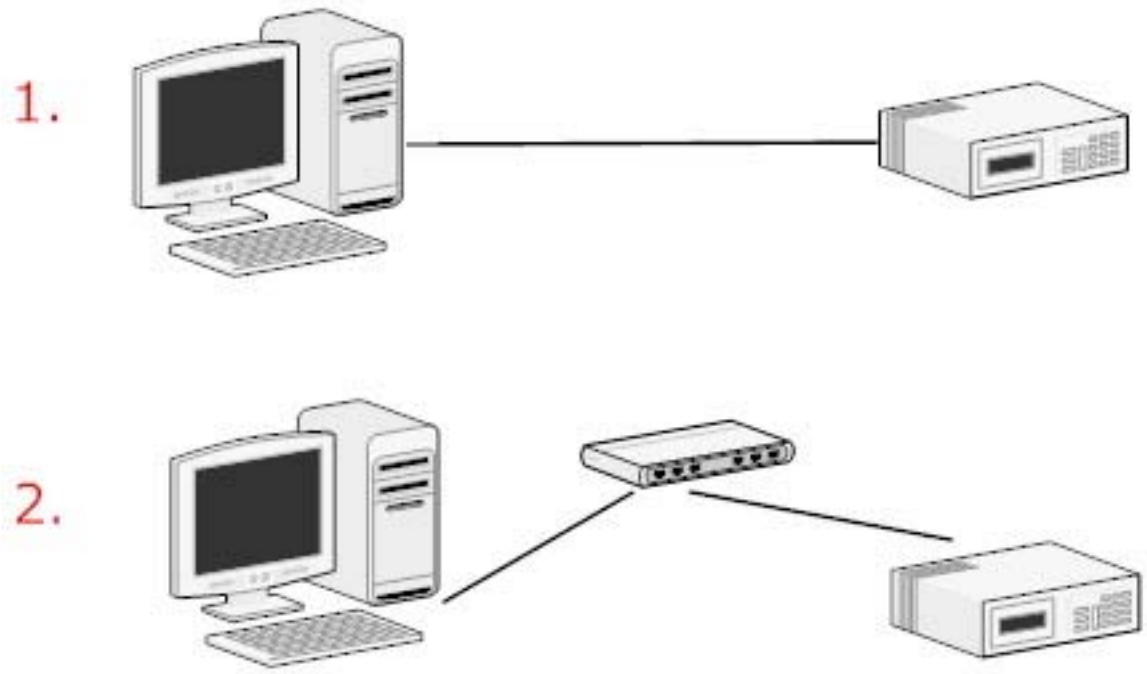
Double-click on an NVR and the search program should automatically access the NVR's web administration page from your default browser.

You should be prompted for the NVR's username and password. Enter **its default username "admin" and password "admin"** and then click "OK" to enter the system

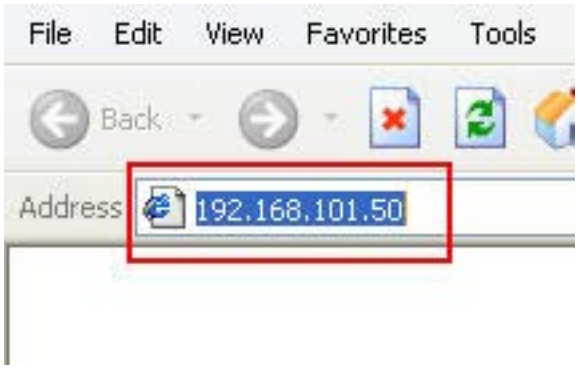
- Please make sure you are using Internet Explorer 7 or above
- If you are running Windows Vista or 7, please make sure you are running Internet Explorer with the "administrator" privilege.



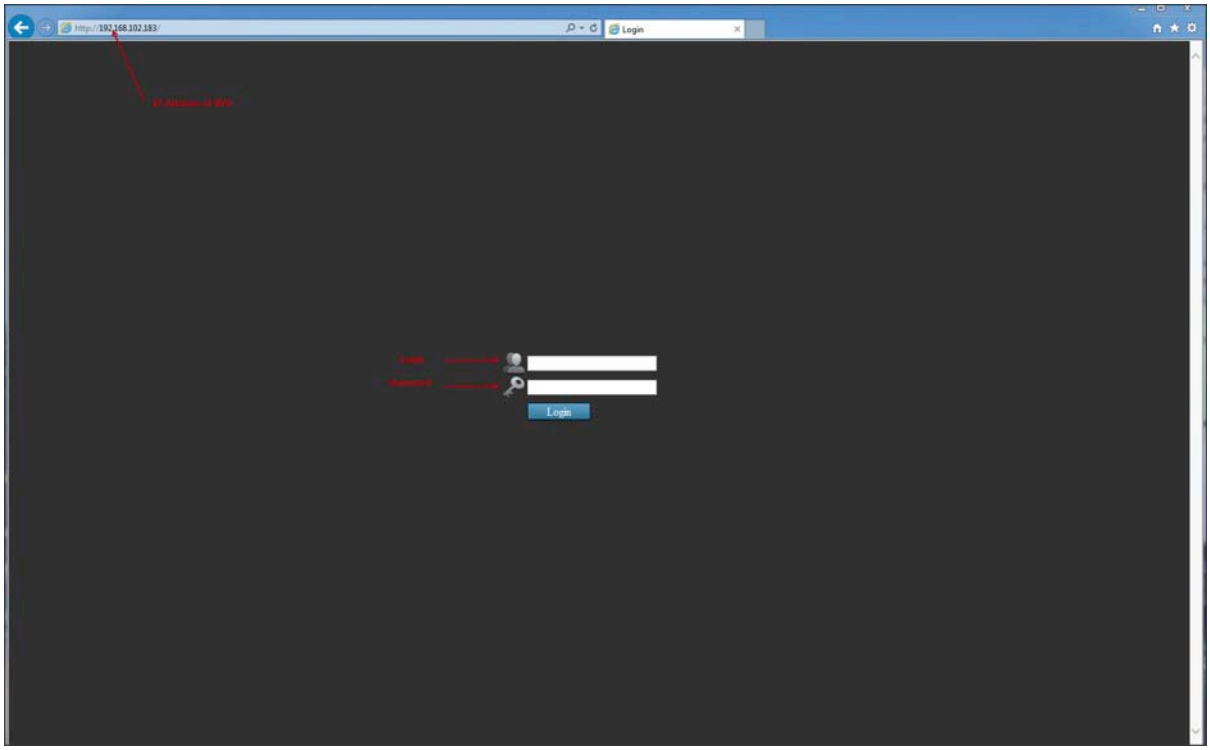
Access the NVR with its default IP address



The NVR comes with a pre-configured static IP "**192.168.101.50**". However, it is only used when there is no DHCP server presented in the network. The NVR will turn on its DHCP server function and act as the DHCP server in the network. To connect to the NVR, use a PC that is on the same network over a switch or hub, or connect the PC directly to the NVR using a crossover CAT5 Ethernet cable.

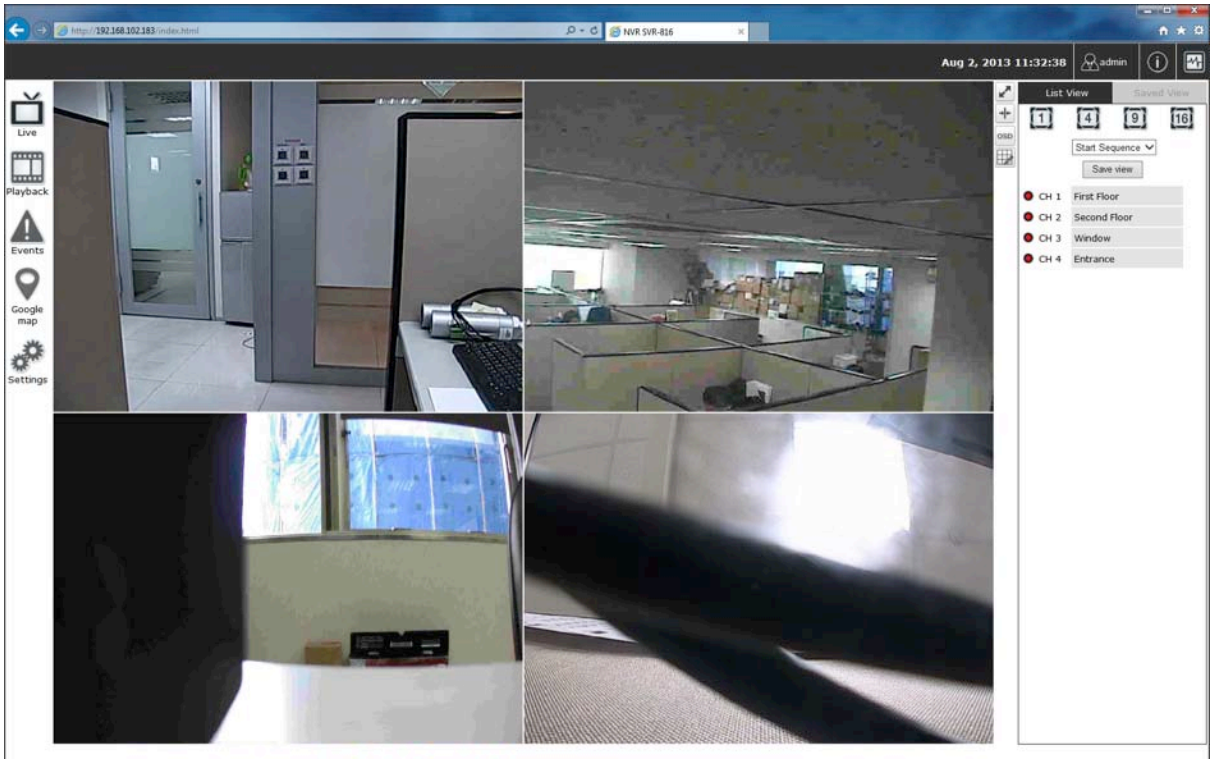


The PC that is connected directly to the NVR (or within the same local area network) should receive an IP from the NVR. Simply access the NVR from your web browser with its IP address



Again, you should be prompted for the username and password. Enter its default username "**admin**" and password "**admin**" and then click "OK" to enter the system

Main/Live View



The main/live view is the first interface displayed once you access to the NVR through the internet browser.
It displays the live video of all the cameras added to the NVR and following the pattern chosen by the user. The interface has many functions explained bellow.

The "Live View" page provides the following functions:

- **Retrieve camera's video stream**
- **Retrieve camera's status**
- **Perform Live Sequence Viewing**
- **PTZ Control (Click directly on the video)**
- **Perform PTZ Preset Sequence viewing**
- **Perform manual recording**
- **Take snapshot** - as soon as a snapshot selection is made, the snapshots are automatically saved to x:\SnapshotFolder ("x" represents the partition where Windows is installed, e.g: C:\)
- **Receive audio of a video stream**
- **Send audio**
- **Control "Buzzer"**
- **Change web UI display language**

a. The UI's 5 main functions:

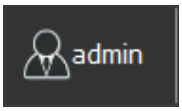
The bar displays the 5 main functions of the Web User Interface (UI).

The Live view is the main view .The other 4 views will be explained in each chapter.

b. Date and Time display

The Date and the Time are defined by the user in the settings section of the NVR.

c. User's configuration



It displays the name of the current user.

If you click on the name of the user, the context menu offers the functions bellow:

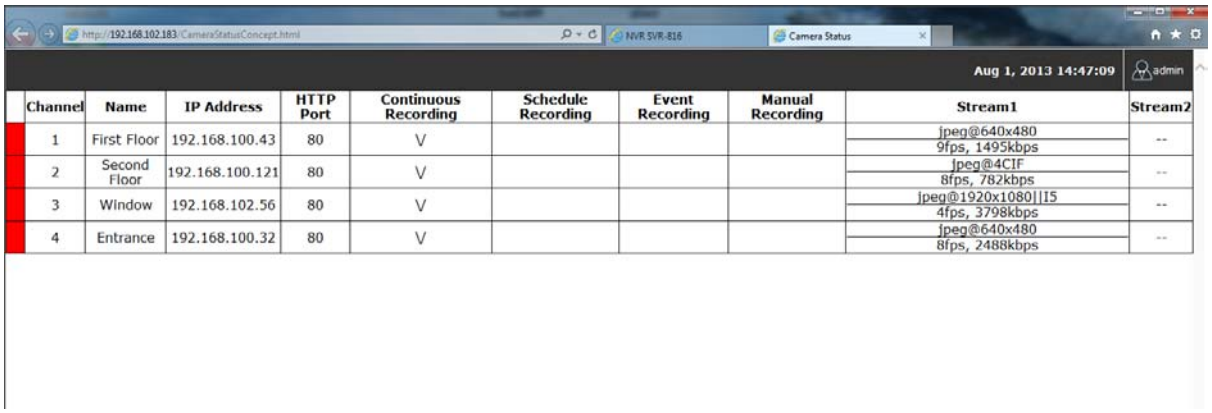
- Language settings
- User setting
- Locking the screen
- Logout function

d. Hardware events notification

In this section, you will receive notifications if a warning sound is triggered or if the hard drive of the NVR failed in recording data.

e. Channels status

If you click on the icon, page tab will display the current status of the channels added to the NVR.



Channel	Name	IP Address	HTTP Port	Continuous Recording	Schedule Recording	Event Recording	Manual Recording	Stream1	Stream2
1	First Floor	192.168.100.43	80	V				jpeg@640x480 9fps, 1495kbps	--
2	Second Floor	192.168.100.121	80	V				jpeg@4CIF 8fps, 782kbps	--
3	Window	192.168.102.56	80	V				jpeg@1920x1080||I5 4fps, 3798kbps	--
4	Entrance	192.168.100.32	80	V				jpeg@640x480 8fps, 2488kbps	--

It can also display the current configuration used for the event recording or the configuration settled for the scheduled and manual recording.

The channels status page is updated as long as the NVR's main user interface is open.

f. Video frame

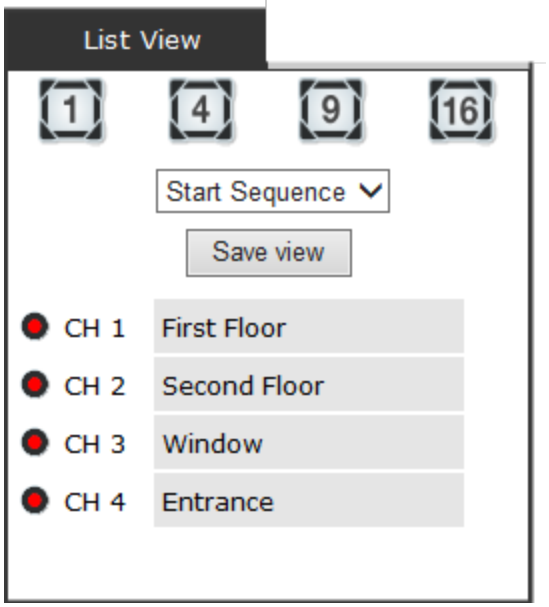
All the camera's videos are displayed in this frame.

- The PTZ function is available by clicking of the left button of the mouse on the camera's view.
- Double click on the left button of the mouse enables the zoom function. To disable it you can click on the right button of the mouse.

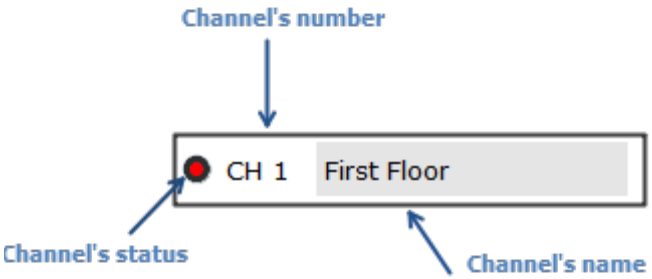
If the cursor is pointing on one of the cameras, it will show a bar in the top.

The bar displays the channel's number and some functions as showed on the snapshot above.

g. List view



It displays the list of channels added to the NVR. Each channel represents a camera with its name, the channel number and its currents status.



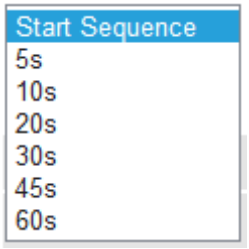
The channel's status is defined by 3 colors:

- Red: The channel is recording and the live view is available
- Blue: The channel is connected and live view is available
- Grey: The camera is disconnected

- **1, 4, 9, 16 Pattern view**

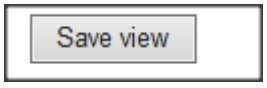
Different patterns of live view can be displayed on the video frame.
You can display 1, 4, 9, or 16 cameras at once.
Every time you click on an " n" pattern icon, the live video of the next "n" cameras will be displayed.

- **Sequence view**



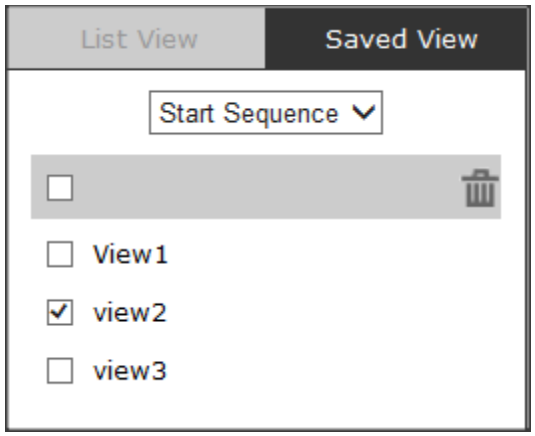
The sequence mode will automatically switch between a single or group of cameras every a certain period of time. You can define this period to 1 second to 60 seconds

- **Save view**



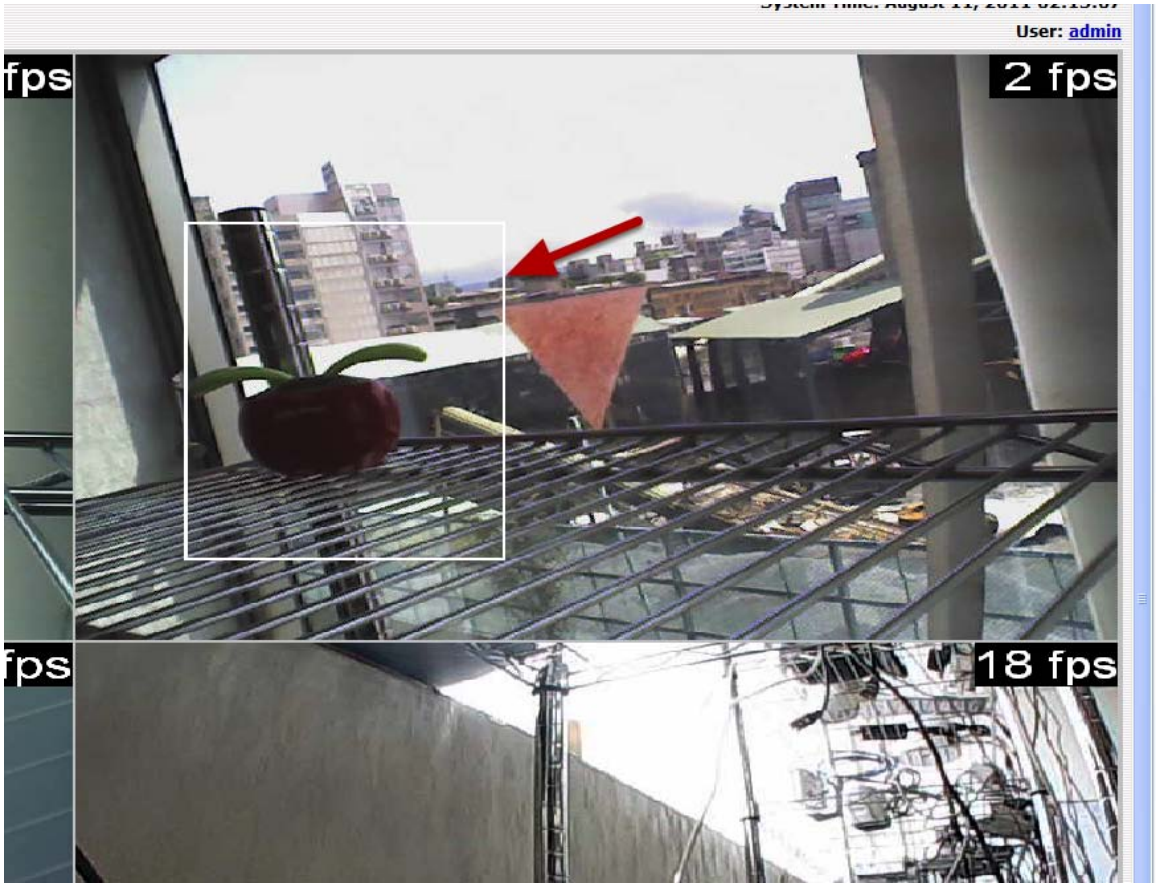
Click on the save view button and you will able to name the current view and save it.
This will help to quickly display your configured views when needed.

h. Saved view



This section can display the views that you have already saved. You can choose the views from the list you have created. You are also able to switch between saved views every certain period of time by clicking on the "start sequence function".
If you check the box beside the name of the view, you can edit or delete the view.

i. Digital zoom



Next, hold the mouse left button and draw a square on the video to specify the zoom in area

Once the image is digitally zoomed in, use the mouse scroll button to further zoom on or zoom out the image. Hold and left-click on the image and move the mouse to move the zoomed in video.

You are able to adjust brightness of the live video from the right-click menu.

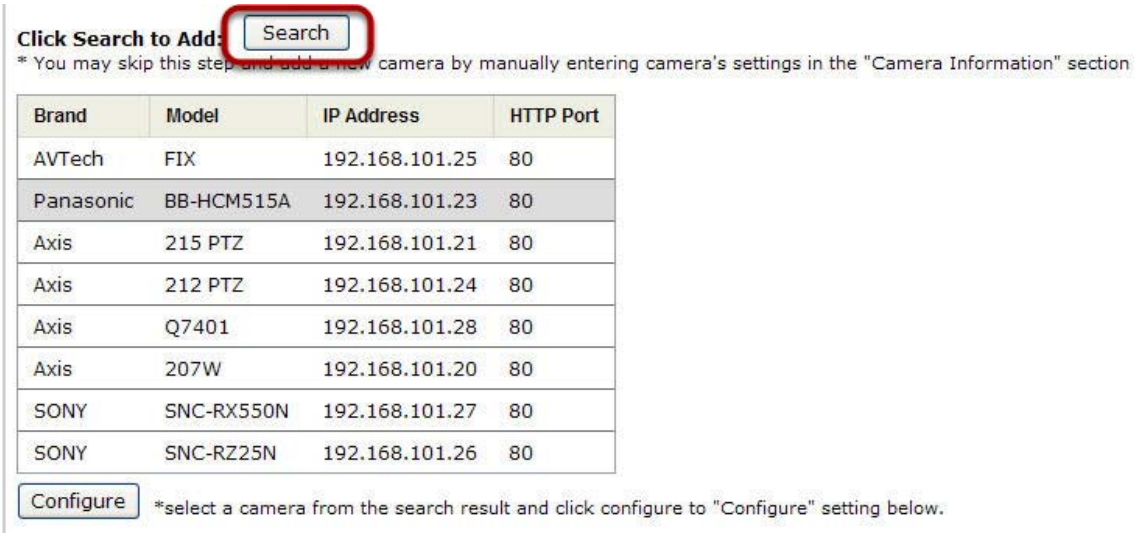
Same thing as the brightness, you can set the contrast for the live video from the right-click menu as well.
You can change the web UI display language from the current login username link located at the upper-right hand corner. Click on the link opens up a new window, which displays detail information about the user as well as a drop-down menu that lets you change the display language.

Set up Password

The default login username and password is admin/admin. To change the password of the admin account, go to "Setup" --> "System Configurations" --> "User Account", click on the "admin" account in the account list then press the "edit" button to change its password. Finally, click "Apply" to save the change.

Camera Installation

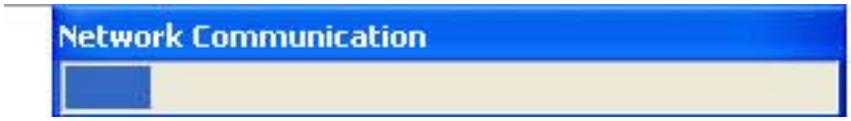
Add a Camera -- Automatic Search



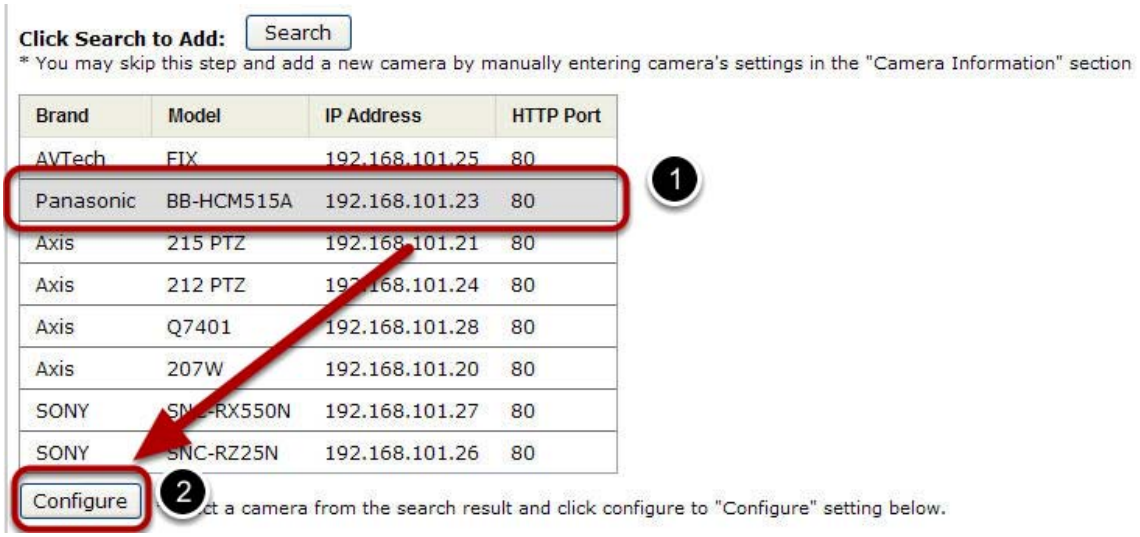
In "Settings" >> "Channel Configuration", click the "Search" button to perform the camera search.

Internet Explorer - Security Warning
Do you want to install this software?
Name: ActiveX Control of Media Client
Publisher:
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

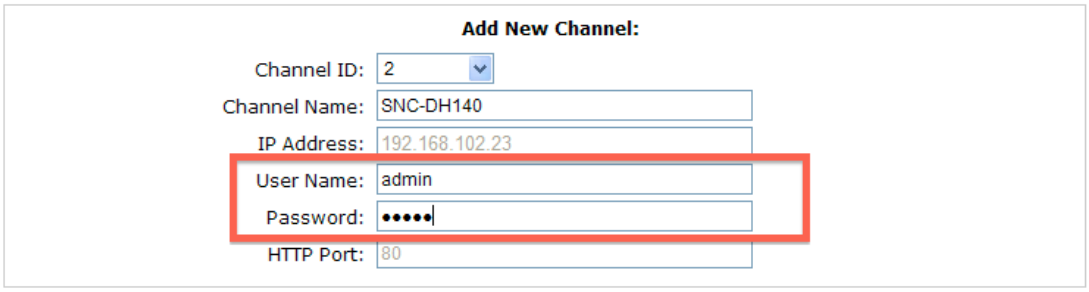
You should be prompted to install Active Control component in order for the search to function properly. Go ahead and click "Install"



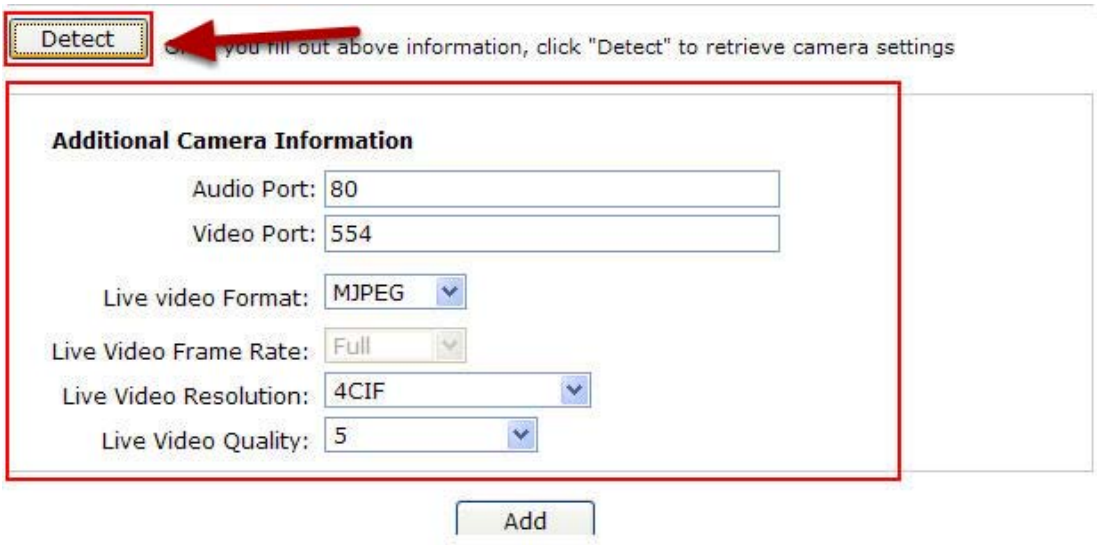
After that, the search should begin and its status should be displayed:



Found cameras should be listed and simply select a camera from the list and press "Configure"

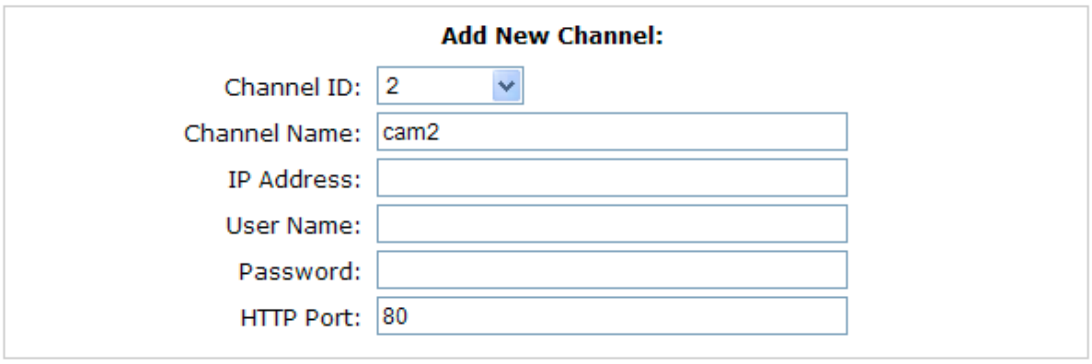


Its corresponding information should be displayed in the "Camera Information" section. Enter its username and password and select the channel ID and name the camera.



Click on "Detect" to establish connection between the recorder and the camera. If connection establishes successfully, camera's detailed information should be polled and displayed as below.
Adjust its video format, frame rate, resolution or bitrate...etc if you wish and then click "Add" to finish adding the camera

Add a camera manually

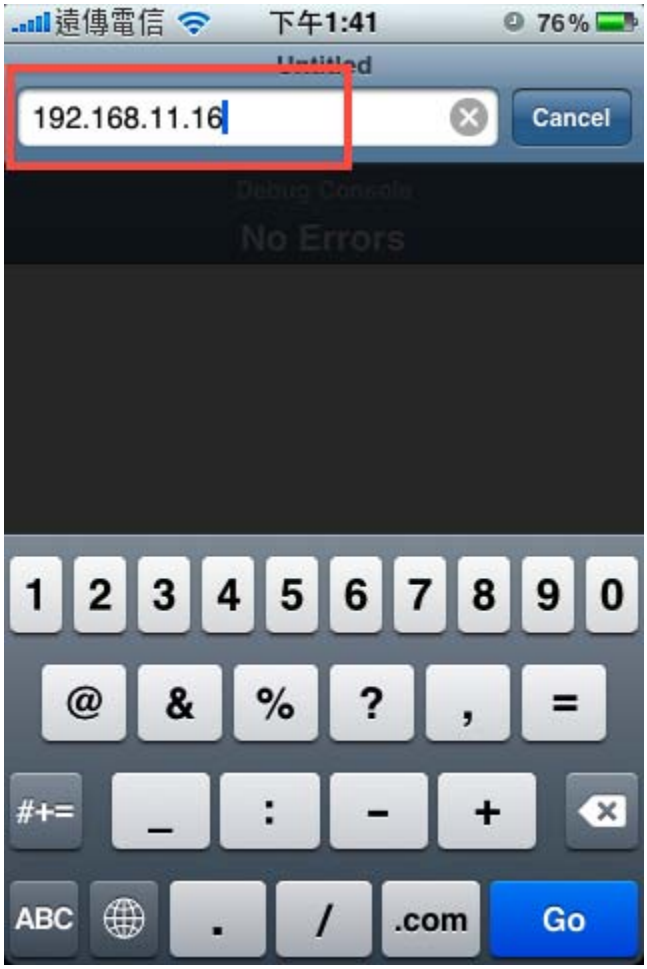


Simply follow the instruction described above but instead of using the "Search" function, enter the camera's IP address and credential in the "Camera Information" manually.

Live View through iPhone Safari Browser

You can use iPhone and perform single channel live view to the NVR by using its Safari browser. To be able to view the live video through the Safari browser, make sure "javascript" is on under "Settings" >> "Safari" >> "Javascript"

Once Javascript is enabled, click the "Home" button on the iPhone to go back to the home screen and open the Safari browser



Type in the IP address of the NVR in the address bar

You should be prompted to enter the username and password to access the NVR

Upon successful login, you should see the live view video of the first channel

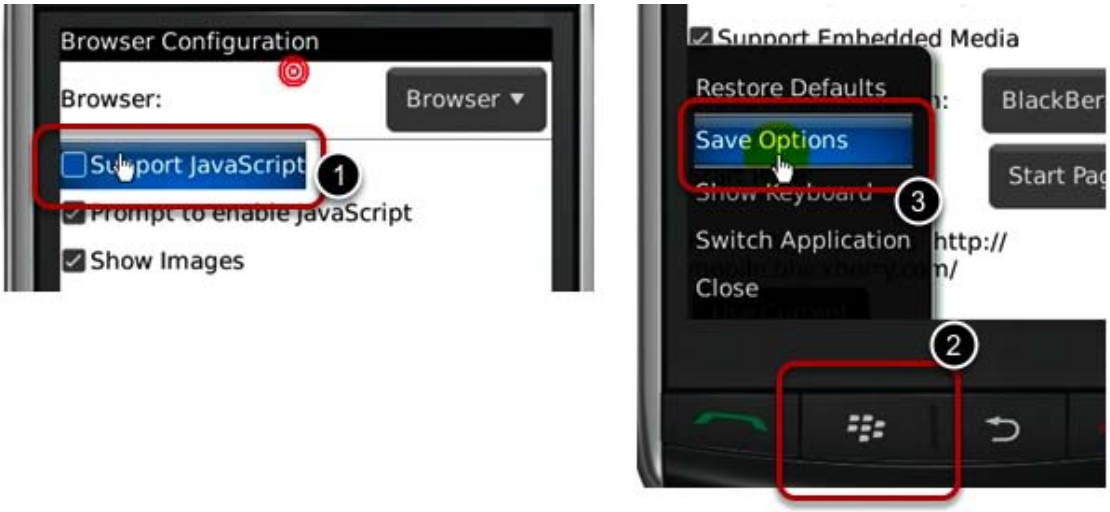
Click on the "Channel" drop-down menu to select other cameras

If a PTZ camera is selected, the corresponding control buttons will display (control PT only)

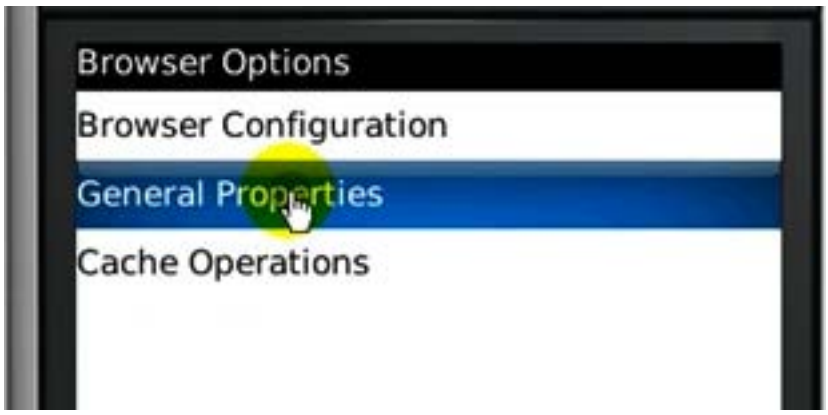
** Please note that this function is camera dependent and is not available to all cameras. Certain cameras do not allow adjusting image size and the selection "Auto" will be used.*

Live View through Blackberry Phones

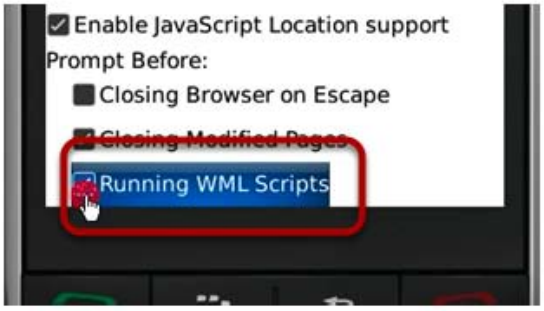
You can use Blackberry and perform single channel live view to the NVR by using its Safari browser. To be able to view the live video through its browser, make sure "javascript" is enabled under "Browser" >> "Menu button" >> "Options" >> "Browser Configuration"



Enable the "Support Javascript" option and click the menu button and click "Save Options"



Go to "General Properties



Make sure two options illustrated above are enabled

Press the menu button and click the "Save Options" to save settings

Press the button highlighted above to go back to the browser

Type in the IP address of the NVR in the address bar

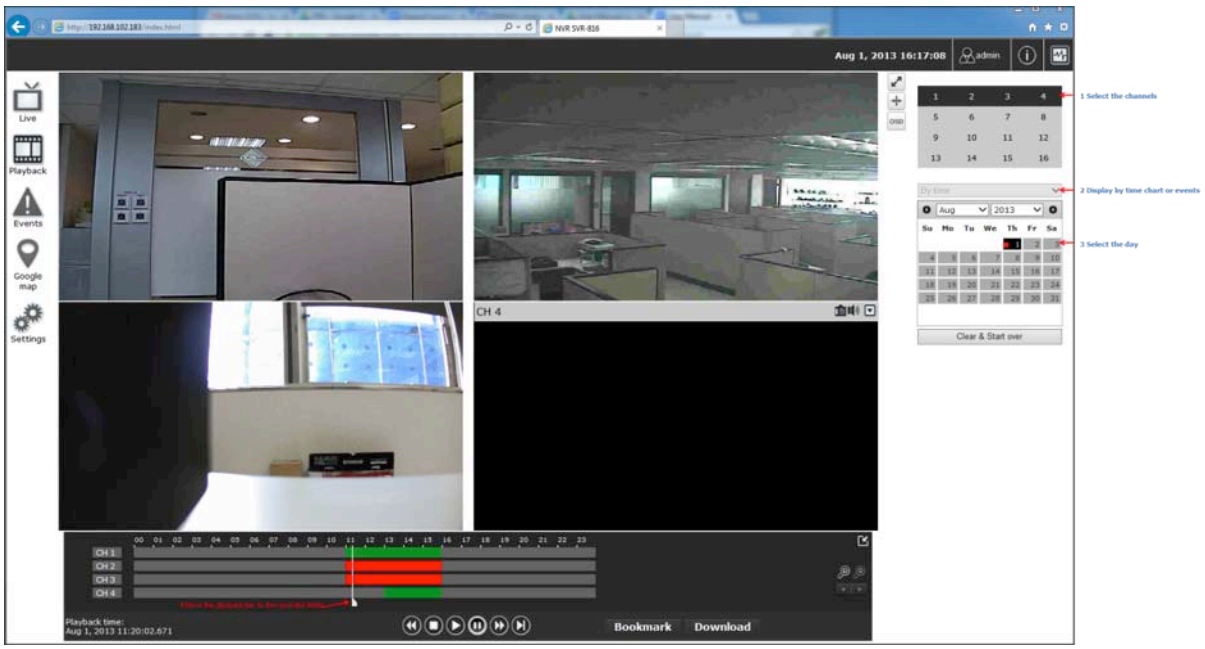
You should be prompted to enter its username and password for access

Playback view

Playback is a function that allows you to play one or more videos that were previously recorded by a chosen recording method or due to an event trigger. The NVR offers synchronized playback from up to 4 channels and various types of search methods are provided to help you find the footage you need quickly.

You can turn on or off the audio of a recorded video at your choice if audio was also recorded during the recording of the video.

Playback video can be viewed in full screen and snapshots can be taken and saved during a video playback.



a. Zoom on a range of time

If you click on the icon you can zoom on range of the time and get more details on the playback bar.

b. Minimize the bar of the playback

If you click on the icon you can minimize the playback range to get more space for the videos.

Certain functions you can perform to the playback video

You can do the followings by right clicking on the playback video:

1. Play Audio
2. Snapshot
3. Export as AVI file
4. Digital PTZ
5. Adjust brightness
6. Adjust Contrast

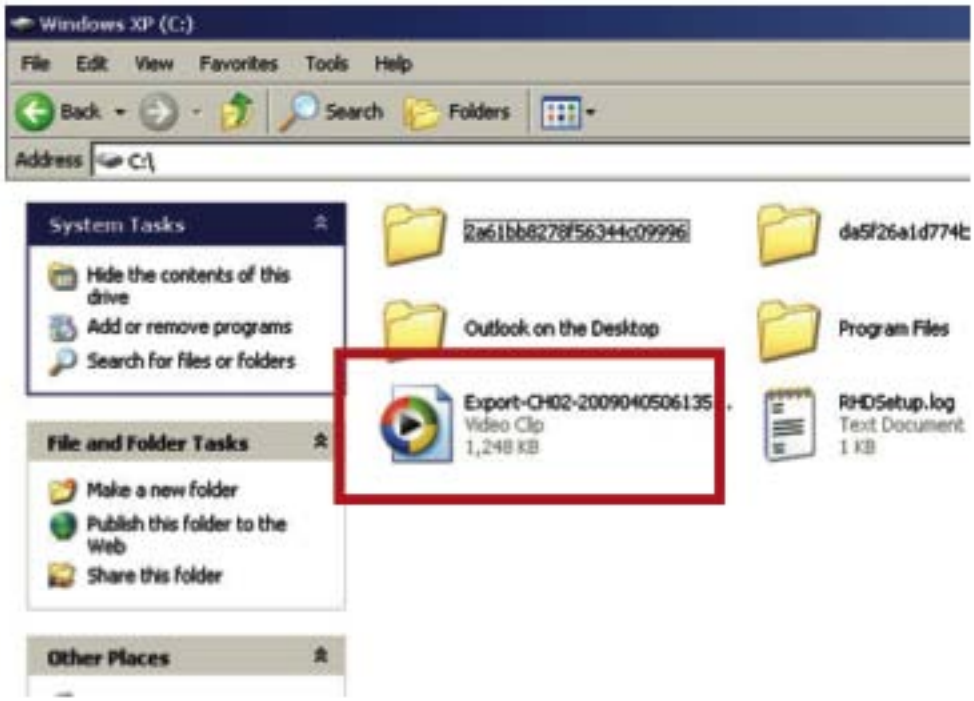
Take a snapshot of a playback video

To take a snapshot, right-click on the video and select "Take Snapshot". You are given with options to take 1 snapshot or 3 continuous snapshots.

If the "3 continuous snapshots" option is chosen, the new window displays snapshots and lets you view them individually by using the "Prev", "Next" buttons shown above.

However, as soon as a snapshot selection is made, the snapshots are automatically saved to x:\SnapshotFolder ("x" represents the partition where Windows is installed, e.g: C:\)

You can right-click anywhere on the image and select "Save Picture As..." to save the images somewhere else if you wish.



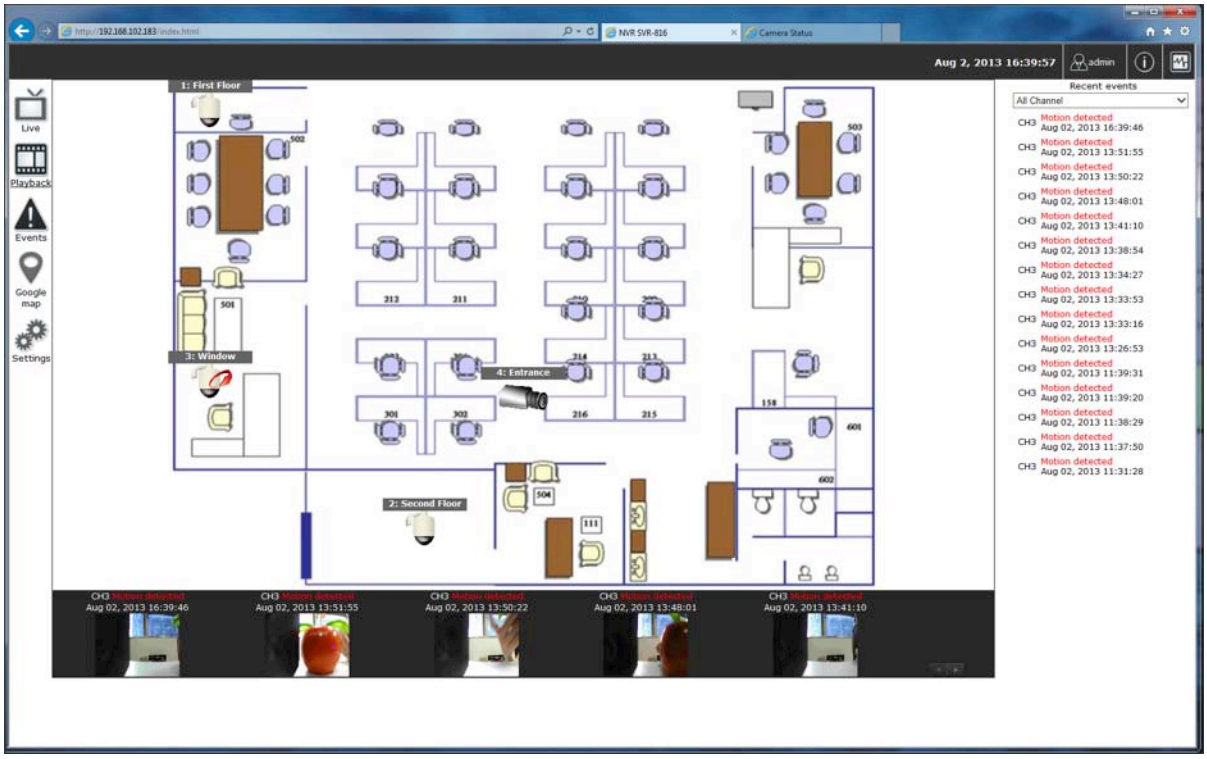
The exported AVI file will be saved under the C partition (or the partition where Windows is installed)

- *ffdshow is required in order to play the exported AVI file with Windows Media Player.*
  You can get it at "http://sourceforge.net/projects/ffdshow/"

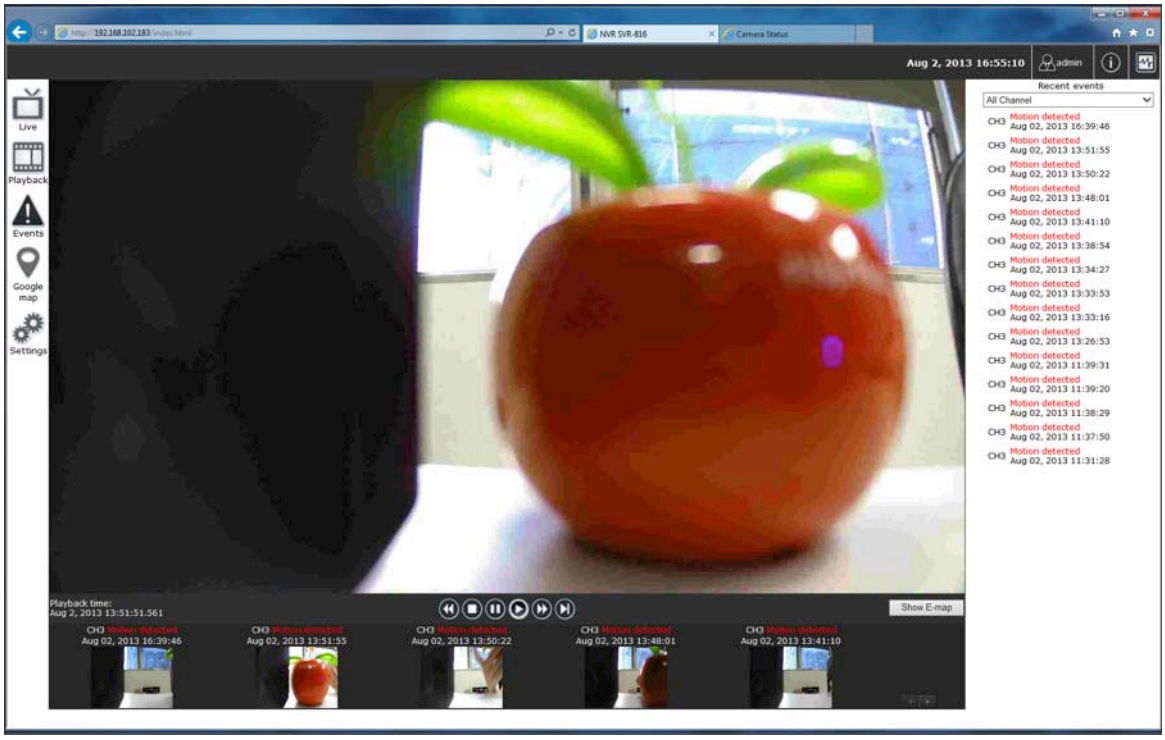
Event view

This section displays the last events recorded by the NVR.

The events can only be detected and displayed if you have configured it on the NVR's settings. You can display the event of all the channels at once or by each channel.


Aug 2, 2013 16:39:57
admin
Live
Playback
Events
Google map
Settings
1: First Floor
2: Second Floor
3: Window
4: Entrance
Recent events
All Channel
CH3 Motion detected Aug 02, 2013 16:39:46
CH3 Motion detected Aug 02, 2013 13:51:55
CH3 Motion detected Aug 02, 2013 13:50:22
CH3 Motion detected Aug 02, 2013 13:48:01
CH3 Motion detected Aug 02, 2013 13:41:10
CH3 Motion detected Aug 02, 2013 13:38:54
CH3 Motion detected Aug 02, 2013 13:34:27
CH3 Motion detected Aug 02, 2013 13:33:53
CH3 Motion detected Aug 02, 2013 13:33:16
CH3 Motion detected Aug 02, 2013 13:26:53
CH3 Motion detected Aug 02, 2013 11:39:31
CH3 Motion detected Aug 02, 2013 11:39:20
CH3 Motion detected Aug 02, 2013 11:38:29
CH3 Motion detected Aug 02, 2013 11:37:50
CH3 Motion detected Aug 02, 2013 11:31:28

You can click on one of the picture on the bottom of the UI to display the de event related to it. The event can also be displayed if you choose them from the list in the right side of the UI.

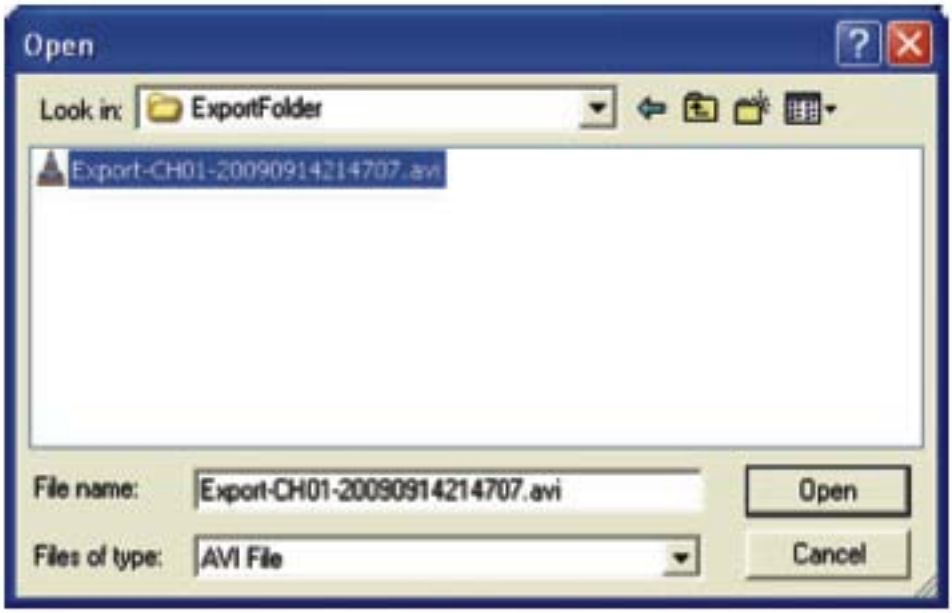

Aug 2, 2013 16:55:10
admin
Recent events
All Channel
Live
Playback
Events
Google map
Settings
Motion detected Aug 02, 2013 16:39:46
Motion detected Aug 02, 2013 13:51:55
Motion detected Aug 02, 2013 13:50:22
Motion detected Aug 02, 2013 13:48:01
Motion detected Aug 02, 2013 13:41:10
Motion detected Aug 02, 2013 13:38:54
Motion detected Aug 02, 2013 13:34:27
Motion detected Aug 02, 2013 13:33:53
Motion detected Aug 02, 2013 13:33:16
Motion detected Aug 02, 2013 13:26:53
Motion detected Aug 02, 2013 11:39:31
Motion detected Aug 02, 2013 11:39:20
Motion detected Aug 02, 2013 11:38:29
Motion detected Aug 02, 2013 11:37:50
Motion detected Aug 02, 2013 11:31:28
Playback time:
Aug 2, 2013 13:51:51.561
Show E-map

Play Exported Playback Videos with NVR Media Player

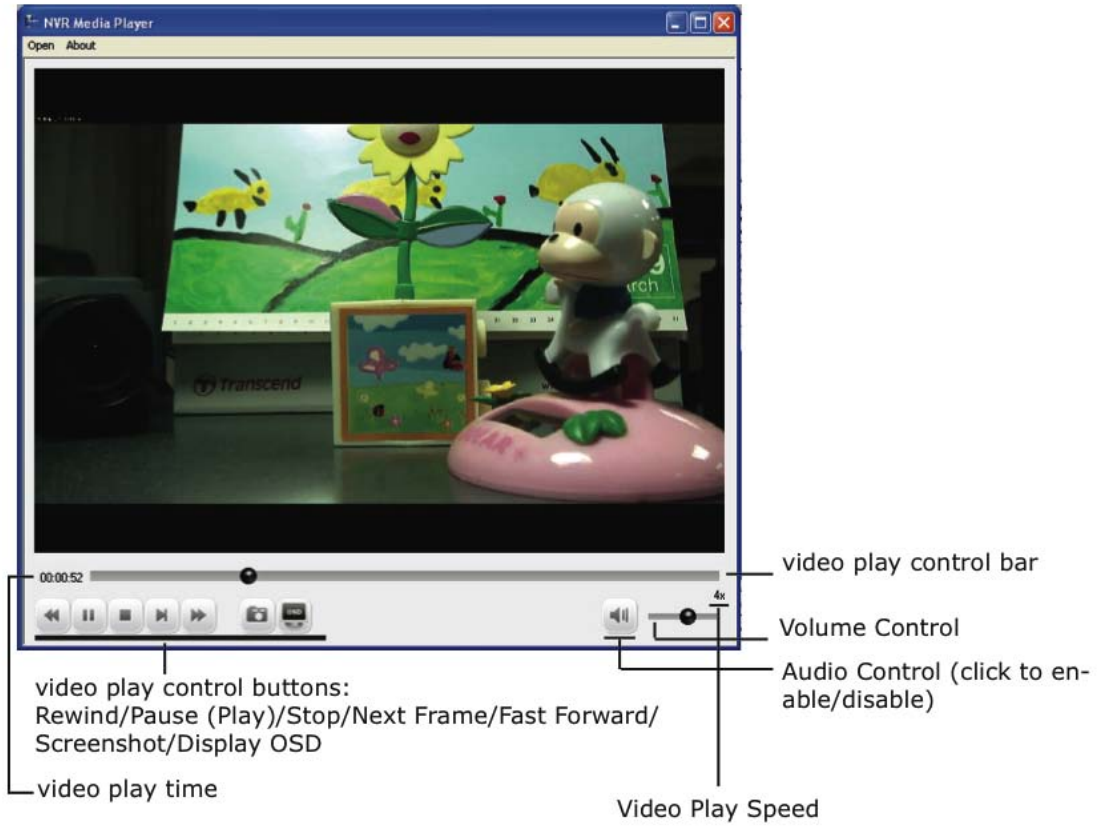
You can also use the NVR Media Player to play the exported AVI files. This can save you the trouble of installing third-party media player or codecs when playing the exported AVI videos.

The NVR Media Player will be automatically installed after the CMS software is installed. You can find it in the Windows Start menu.

Click "Open" >> "AVI File"

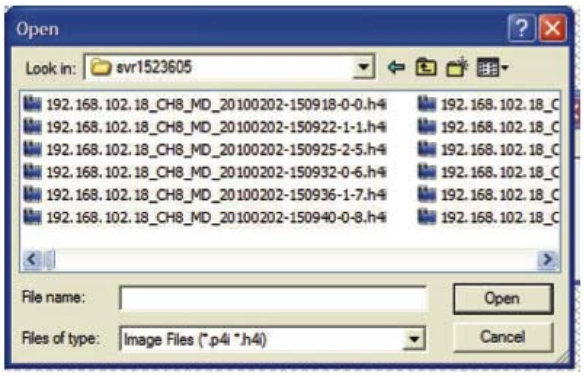


Locate the exported AVI file, and click "open". (Normally under "C:\ExportFolder)"



The video will then start playing

Open Event Snapshot images with NVR Media Player



The NVR sends snapshots that are taken when an event occurs to a destined FTP server or mail recipient. These types of snapshot images are saved in a proprietary image file format, h4i or p4i, and can only be opened by the NVR media player.

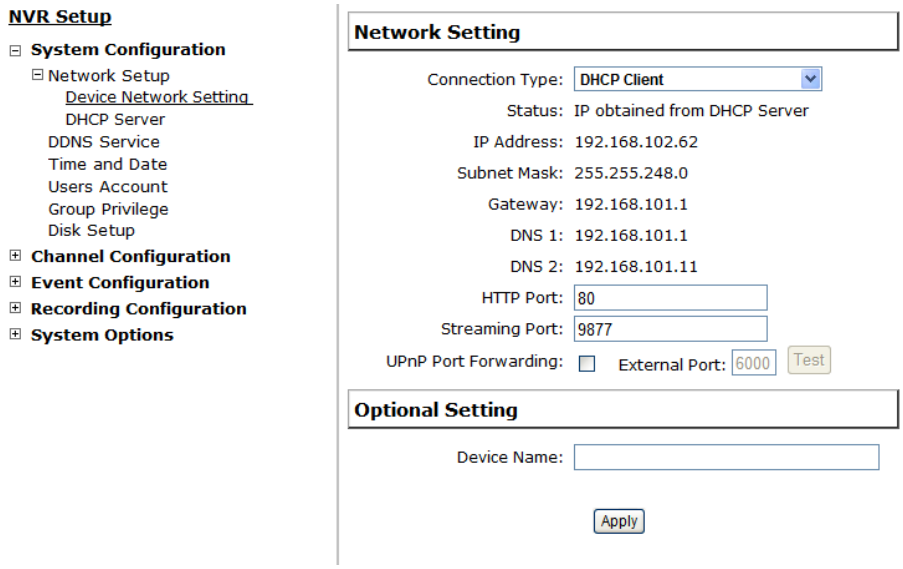
To do so, Select "Open" from the top menu then select "Image File". A new dialog should be displayed which lets you locate the image file.

NVR Setup -- System Configurations

Network Setup

The "System Configurations" page provides users options to setup the device quickly and properly. After properly configuring all settings in all the sub-pages, users should expect a fully working network video recorder that is ready to manage cameras on the network. We will start by configuring its network settings to make sure it works correctly in your network. Next, we will help you adjust the system time so videos will be recorder with correct timestamp. To better secure the system for unwanted disturbance, we will guide you on setting up user's account and privileges to prevent settings gets altered by users other than the system administrator. Lastly, we will tell you what you should expect after installing a hard disk and how to prepare the hard disk for the video recording.

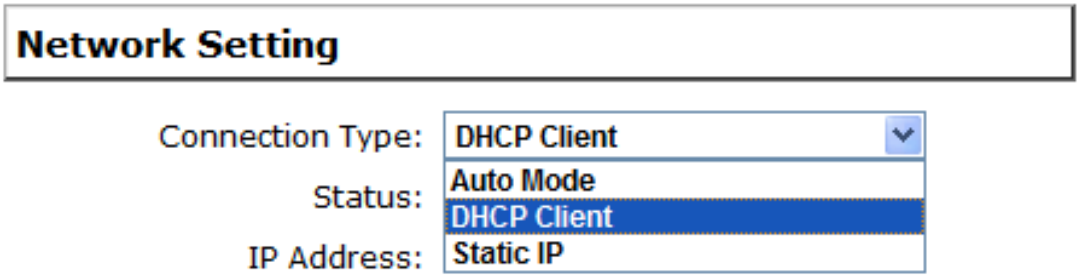
Network Settings



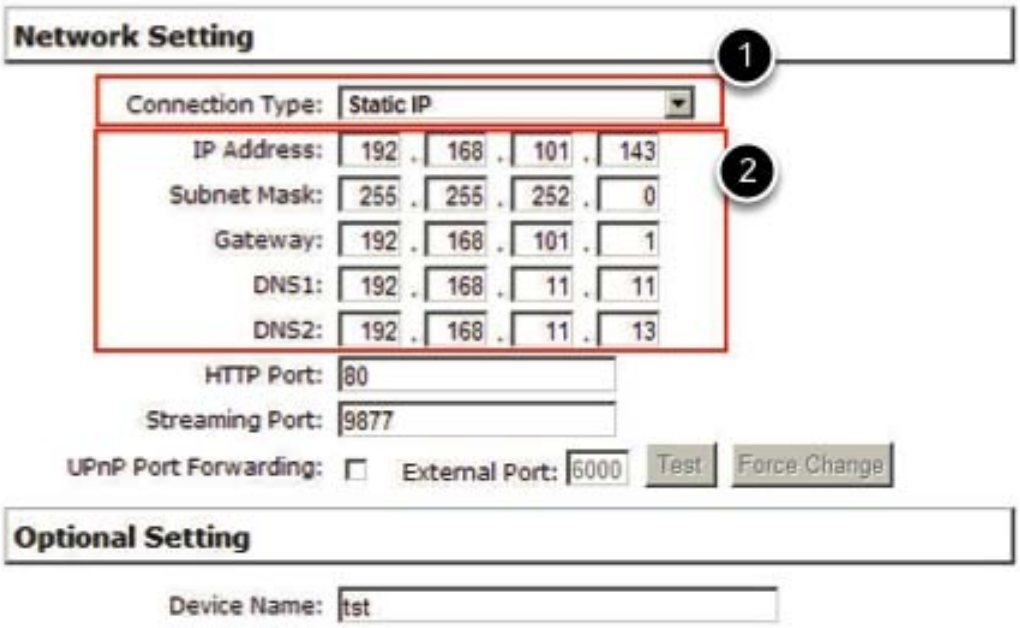
You need to adjust settings in this page for the device to work properly in your network. It is critical that settings here are configured correctly based on your network configurations so that the recorder can be administered through the local area network and cameras can be connected from it.

By default, the recorder is set to "Auto Mode" which if there's a DHCP server in the same local network, the NVR can obtain IP address from

DHCP server, and you can locate the NVR by using the NVR search utility.
If there's no DHCP server in the network, and the NVR is set to use "Auto Mode", it will use its own default static IP 192.168.101.50.



The NVR supports three connection types that can be configured depends on how the network is setup.


Network Setting
1
Connection Type: Static IP
IP Address: 192 . 168 . 101 . 143
Subnet Mask: 255 . 255 . 252 . 0
Gateway: 192 . 168 . 101 . 1
DNS1: 192 . 168 . 11 . 11
DNS2: 192 . 168 . 11 . 13
2
HTTP Port: 80
Streaming Port: 9877
UPnP Port Forwarding:
External Port: 6000
Test
Force Change
Optional Setting
Device Name: tst

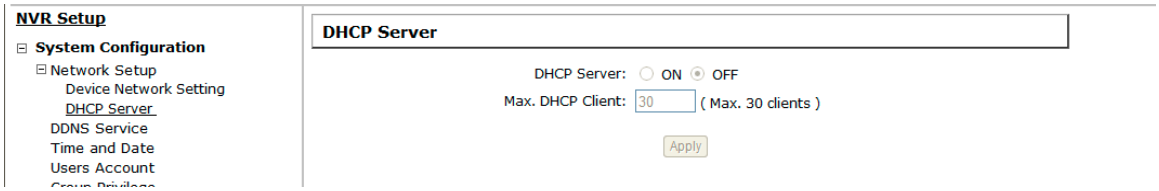
If you wish to set the recorder to use a static IP address in your local area network,

1. Choose "Static IP" from the "Connection Type" drop-down menu

2. Enter the IP address, subnet mask, default gateway address and DNS server address for the recorder

** The recorder can detect the presence of a DHCP server upon startup. It sets itself to use static IP address if there is no DHCP server currently presented in the network. Its DHCP server function is also turned on at the same time to assign IP addresses to cameras that are later connected to the network* or you can manually turn off the DHCP server function from "System Configurations">>"Network Setup">>"DHCP Server" if you wish to use a separate DHCP server.

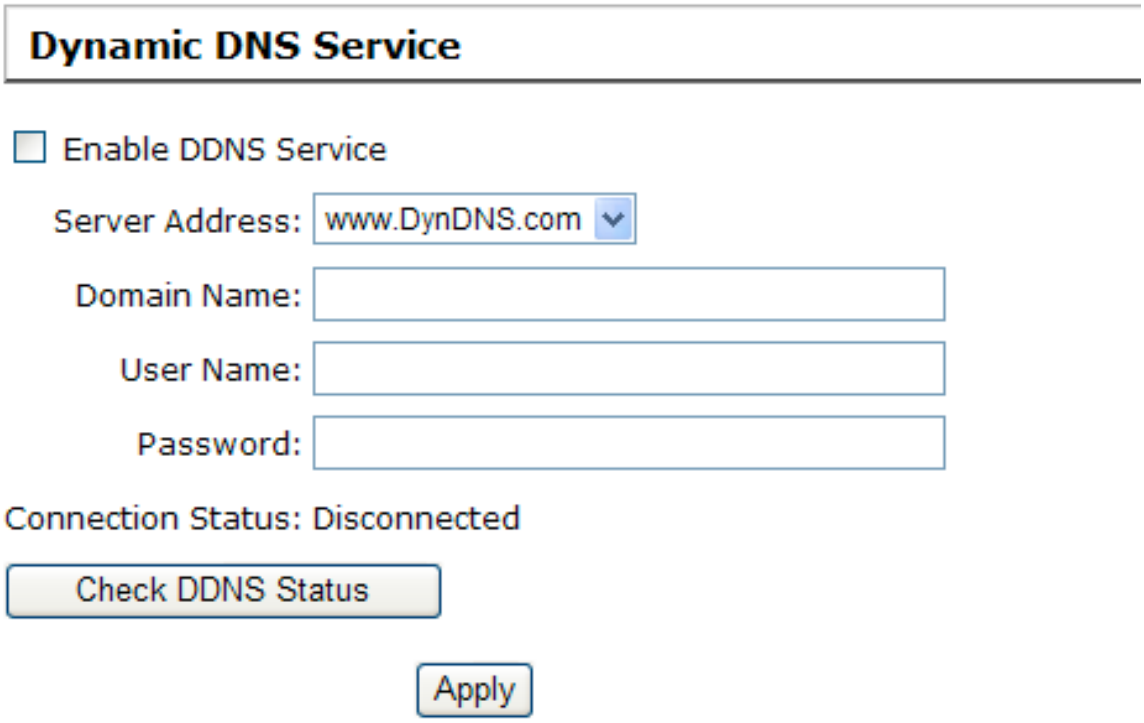
DHCP Server



The built-in DHCP Server function is NOT always configurable and is greatly dependant to the connection type that is set to use in "Device Network Setting":

1. If the connection type is "Auto Mode", the DHCP server function is NOT configurable. It will be ON if the NVR doesn't obtain an IP from a DHCP server in the local network and uses its own default static IP 192.168.101.50
2. If the connection type is "Auto Mode", the DHCP server function is NOT configurable. It will be OFF if the NVR obtains an IP from a DHCP server in the local network.
3. If the connection type is "DHCP Client", the DHCP server function is NOT configurable. It will be OFF if the NVR obtains an IP from a DHCP server in the local network.
4. If the connection type is "DHCP Client", the DHCP server function is NOT configurable. It will be ON if the NVR doesn't obtain an IP from a DHCP server in the local network and uses its own default static IP 192.168.101.50
5. If the connection type if "Static IP", the DHCP server function is configurable and can be turn on/off manually.

DDNS Service



DDNS, which stands for "Dynamic DNS", is a method, protocol, or network service that provides the capability for a networked device, such as a router or computer system (in this case, the NVR) using the Internet Protocol Suite, to notify a domain name server to change, in real time, the active DNS configuration of its configured hostnames, addresses or other information stored in DNS.

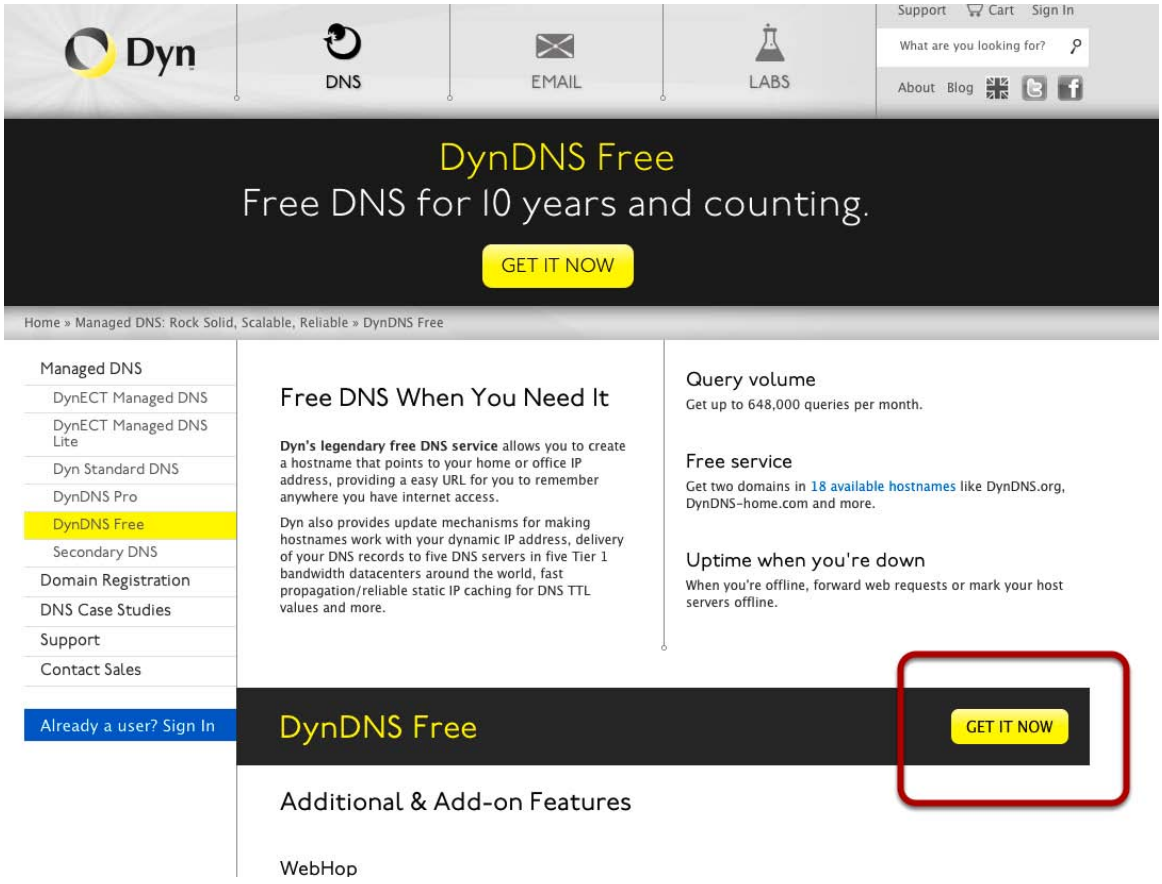
A popular application of dynamic DNS is to provide a residential user's Internet gateway that has a variable, often changing, IP address with a well-known hostname resolvable through standard DNS queries. This is useful if the NVR is placed on the Internet with a dynamic public IP, which once the DDNS is properly setup, users can access the NVR remotely with the DDNS domain name without worrying if the IP has changed or not.

**Please make sure a valid DNS server has been configured under the "Network Setting" page in order for this function to work properly.*

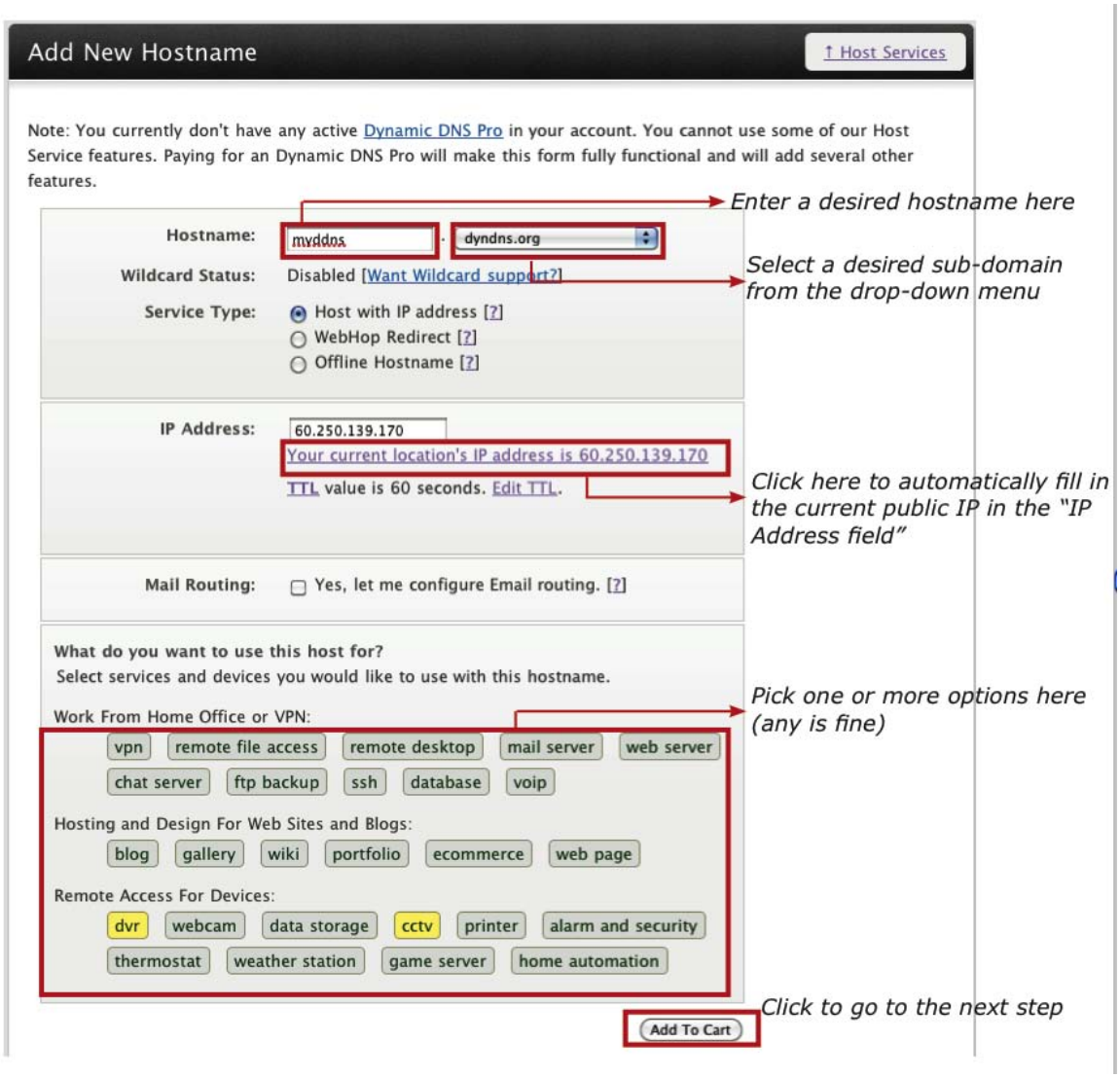
**The NVR currently only works with free DDNS service provided by "DynDNS". For more information, please go to www.dyndns.com*

If the NVR is placed behind a router or Internet gateway, please make sure port forwarding for port 80 is configured on the router or the gat- way in order for the DDNS function to properly register with the service.* ***It's often suggested to use the DDNS function in the router/ gateway for such case instead.*

**Once you have the DDNS function successfully up and running, please DO NOT forget to configure port forwarding for the NVR web port (default 80) and the streaming port (default 9877) in the router/gateway for remote viewing. You can then type in http://yourddnsdomain in the browser to access the NVR remotely for live view.*


Dyn
DNS
EMAIL
LABS
Support
Cart
Sign In
What are you looking for?
About
Blog
DynDNS Free
Free DNS for 10 years and counting.
GET IT NOW
Home » Managed DNS: Rock Solid, Scalable, Reliable » DynDNS Free
Managed DNS
DynECT Managed DNS
DynECT Managed DNS Lite
Dyn Standard DNS
DynDNS Pro
DynDNS Free
Secondary DNS
Domain Registration
DNS Case Studies
Support
Contact Sales
Already a user? Sign In
Free DNS When You Need It
Dyn's legendary free DNS service allows you to create a hostname that points to your home or office IP address, providing a easy URL for you to remember anywhere you have internet access.
Dyn also provides update mechanisms for making hostnames work with your dynamic IP address, delivery of your DNS records to five DNS servers in five Tier 1 bandwidth datacenters around the world, fast propagation/reliable static IP caching for DNS TTL values and more.
Query volume
Get up to 648,000 queries per month.
Free service
Get two domains in 18 available hostnames like DynDNS.org, DynDNS-home.com and more.
Uptime when you're down
When you're offline, forward web requests or mark your host servers offline.
DynDNS Free
GET IT NOW
Additional & Add-on Features
WebHop

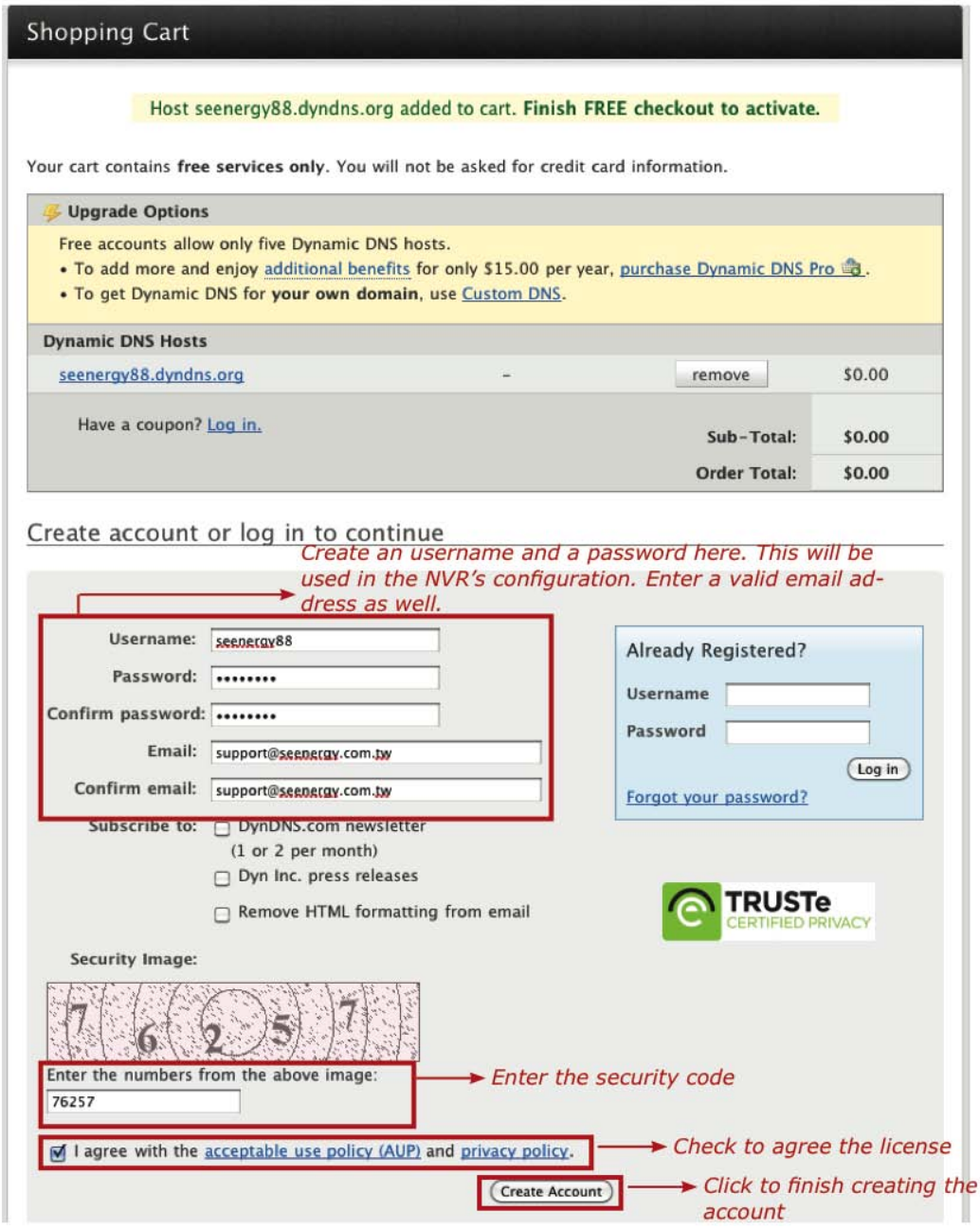
In order to properly configure the DDNS service function, please register a free DDNS domain name and account from DynDNS first. Go to **http://dyn.com/dns/dyndns-free/** from the browser to do so.


Add New Hostname
↑ Host Services
Note: You currently don't have any active Dynamic DNS Pro in your account. You cannot use some of our Host Service features. Paying for an Dynamic DNS Pro will make this form fully functional and will add several other features.
Enter a desired hostname here
Hostname:
myddns
dyndns.org
Wildcard Status:
Disabled [Want Wildcard support?]
Select a desired sub-domain from the drop-down menu
Service Type:
Host with IP address [?]
WebHop Redirect [?]
Offline Hostname [?]
IP Address:
60.250.139.170
Your current location's IP address is 60.250.139.170
TTL value is 60 seconds. Edit TTL.
Click here to automatically fill in the current public IP in the "IP Address field"
Mail Routing:
Yes, let me configure Email routing. [?]
What do you want to use this host for?
Select services and devices you would like to use with this hostname.
Work From Home Office or VPN:
vpn
remote file access
remote desktop
mail server
web server
chat server
ftp backup
ssh
database
voip
Pick one or more options here (any is fine)
Hosting and Design For Web Sites and Blogs:
blog
gallery
wiki
portfolio
ecommerce
web page
Remote Access For Devices:
dvr
webcam
data storage
cctv
printer
alarm and security
thermostat
weather station
game server
home automation
Click to go to the next step
Add To Cart

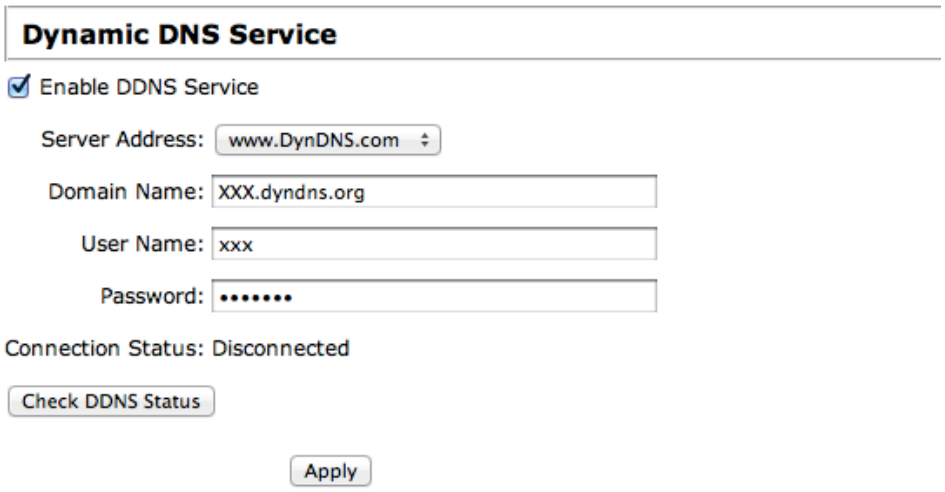
Fill in the necessary fields as illustrated above

The page will check whether or not another user has used the hostname you entered as soon as you click the "Add to Cart" button. If

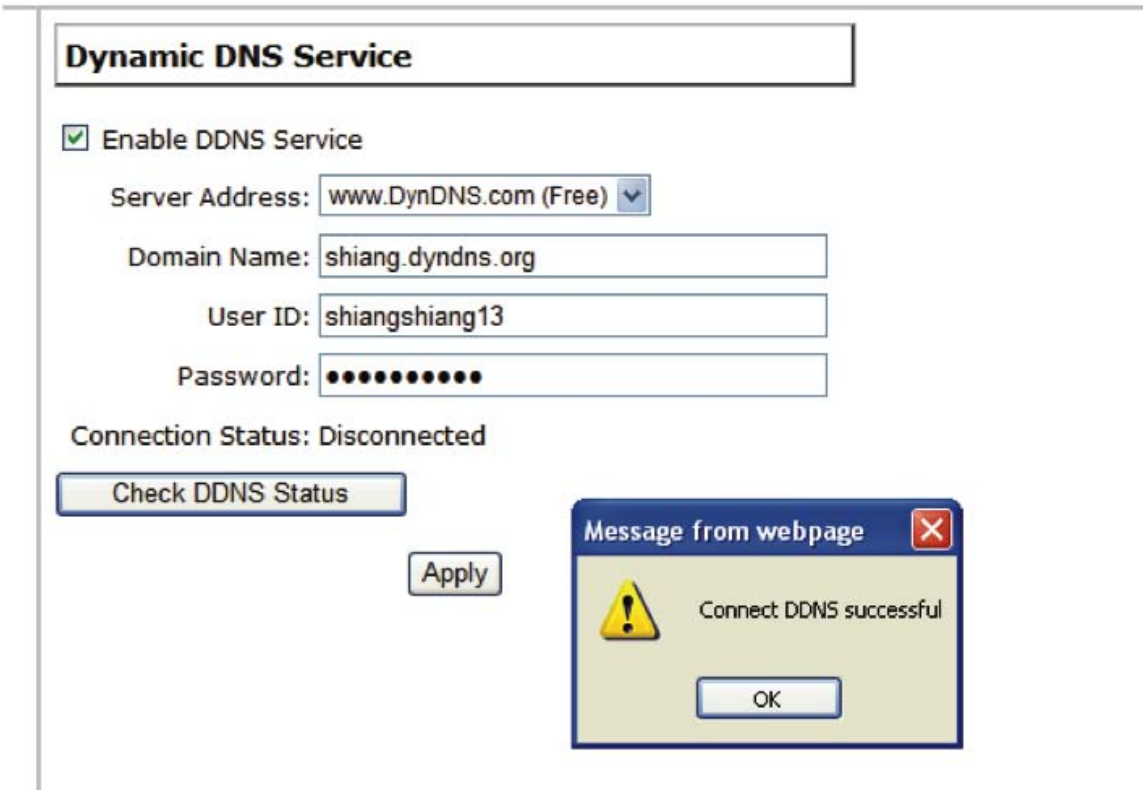
you see below message, simply enter a different and click "Add to Cart" again


Shopping Cart
Host seenergy88.dyndns.org added to cart. Finish FREE checkout to activate.
Your cart contains free services only. You will not be asked for credit card information.
Upgrade Options
Free accounts allow only five Dynamic DNS hosts.
• To add more and enjoy additional benefits for only $15.00 per year, purchase Dynamic DNS Pro.
• To get Dynamic DNS for your own domain, use Custom DNS.
Dynamic DNS Hosts
seenergy88.dyndns.org - remove $0.00
Have a coupon? Log in.
Sub-Total: $0.00
Order Total: $0.00
Create account or log in to continue
Create an username and a password here. This will be used in the NVR's configuration. Enter a valid email address as well.
Username: seenergy88
Password: ••••••••
Confirm password: ••••••••
Email: support@seenergy.com.tw
Confirm email: support@seenergy.com.tw
Already Registered?
Username
Password
Log in
Forgot your password?
Subscribe to: DynDNS.com newsletter (1 or 2 per month)
Dyn Inc. press releases
Remove HTML formatting from email
TRUSTe CERTIFIED PRIVACY
Security Image:
Enter the numbers from the above image:
76257
Enter the security code
I agree with the acceptable use policy (AUP) and privacy policy.
Check to agree the license
Create Account
Click to finish creating the account

Once you get to the next page, fill in the necessary fields as illustrated above

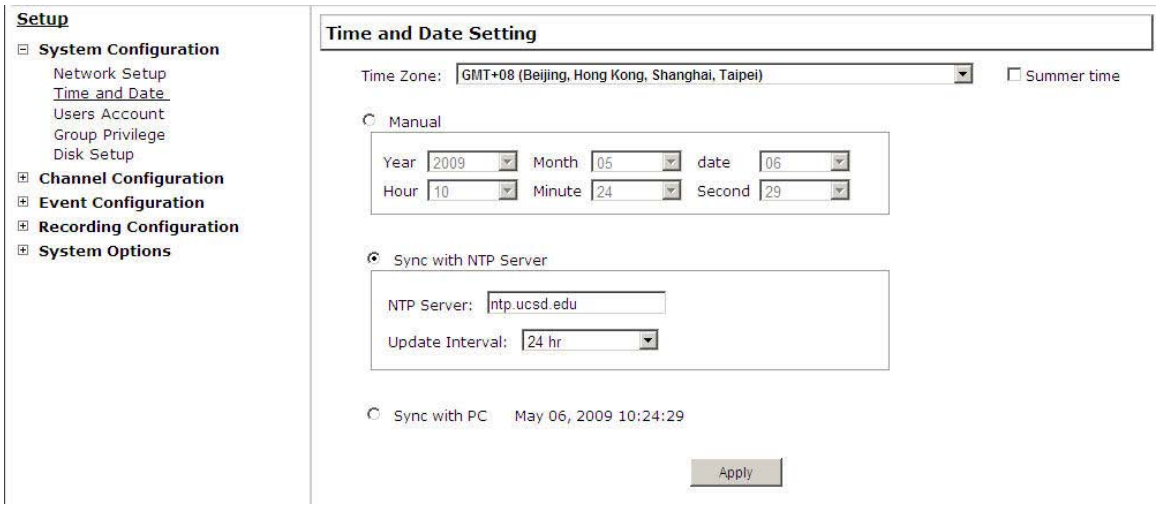


Go back to the NVR's DDNS service configuration page under "Setup" >> "System Configuration" >> "DDNS Service".
Fill in the domain name you picked during the registration in the "Domain Name" field and the username/password you created in the "User ID" and "Password" field and click "Apply" to finish



You can click the "Check DDNS Status" button to check the DynDNS service status. If you are getting a "Disconnected" message, it means that DDNS service server is down or the NVR is not connected to the Internet. If everything is ok normally, you should be prompted with a success message

Time and Date



Set the time and date by selecting the time zone according to your location. It is imperative that you set the recorder's time correctly to avoid the following errors:

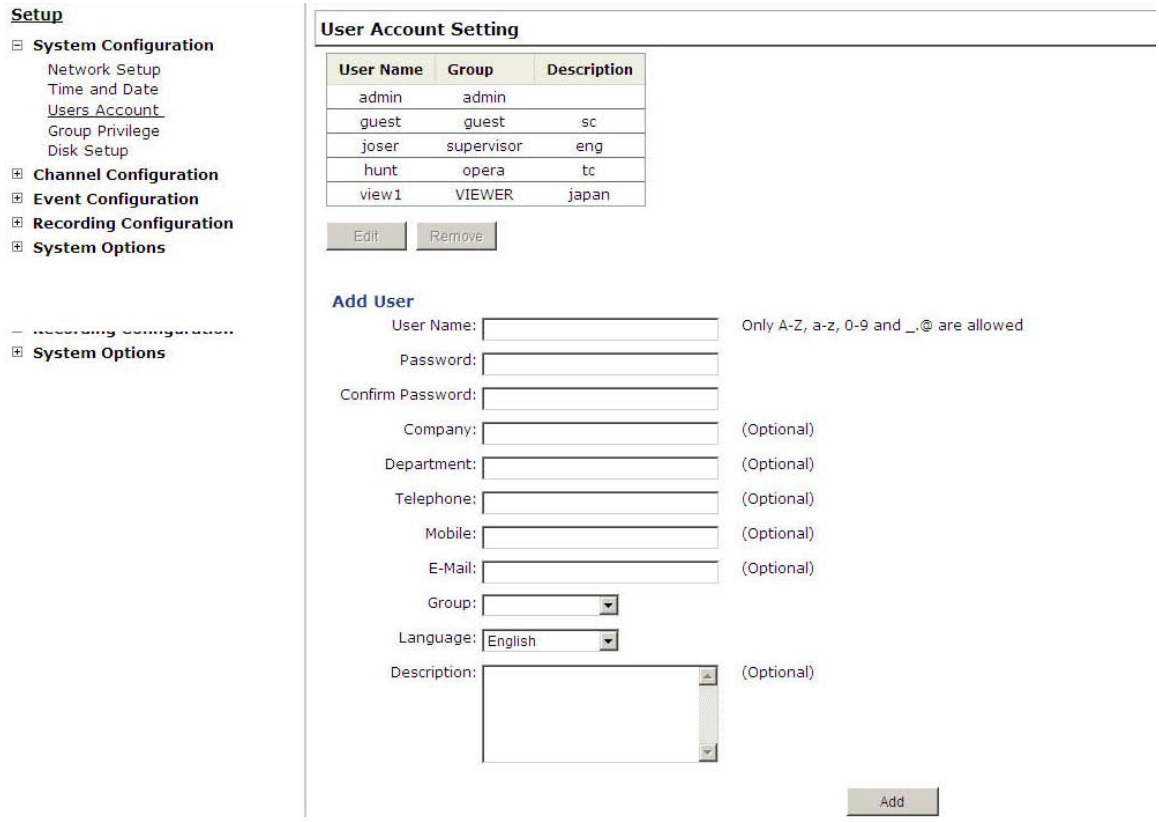
• Incorrect display time for playback videos
• Inconsistent display time of event logs and when they actually occur
After selecting the time zone, choose an option below to set the recorder time

• **Manual** – Use the drop-down list and configure the time manually

• **Sync with NTP server** – enter the hostname or IP address of a valid NTP server and set how often the recorder should synchronize the time with it by using the "Update interval" drop-down menu

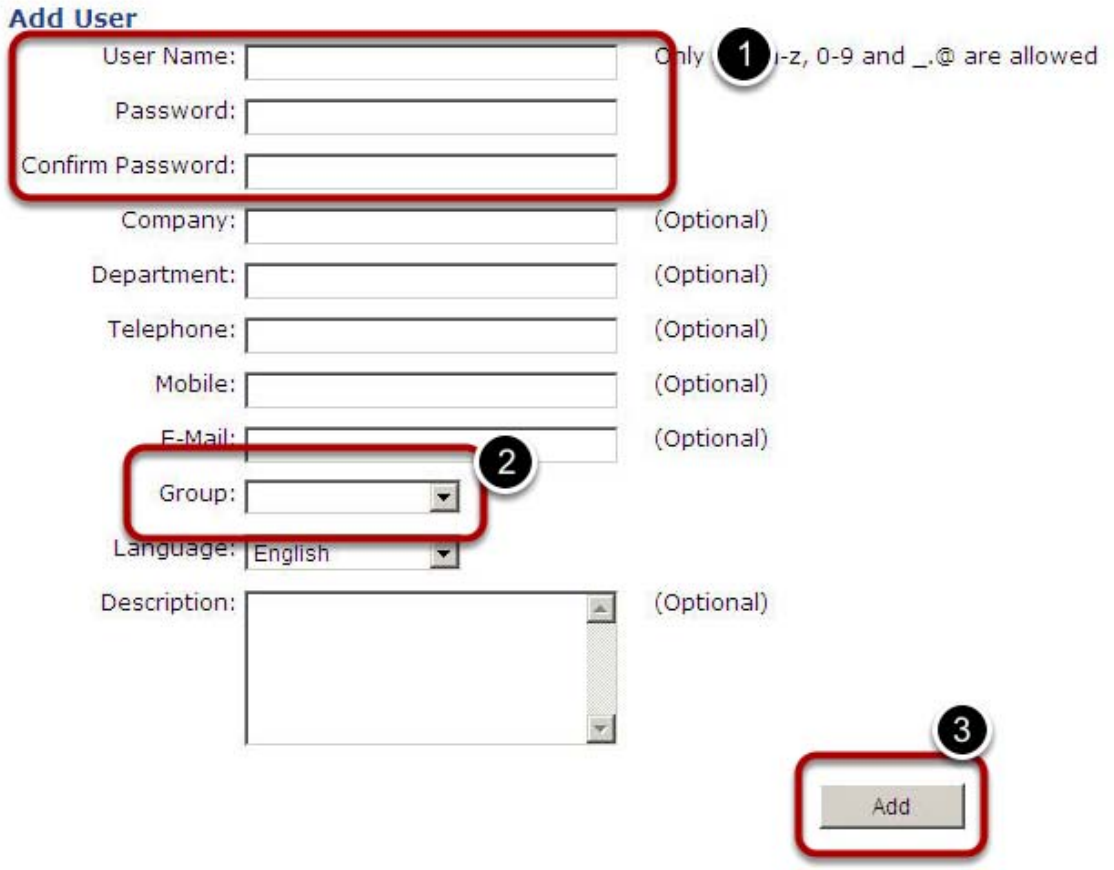
• **Sync with PC** – Check this option to synchronize the recorder time with the PC that you are currently using to access the recorder

User Account



Multiple users can access the recorder simultaneously. You can add, remove, and edit users by using options provided in this page to keep user information organized. Each recorder comes with a built-in "admin" account with password "admin". It's highly recommended to change the password upon your initial login.

Add a new user

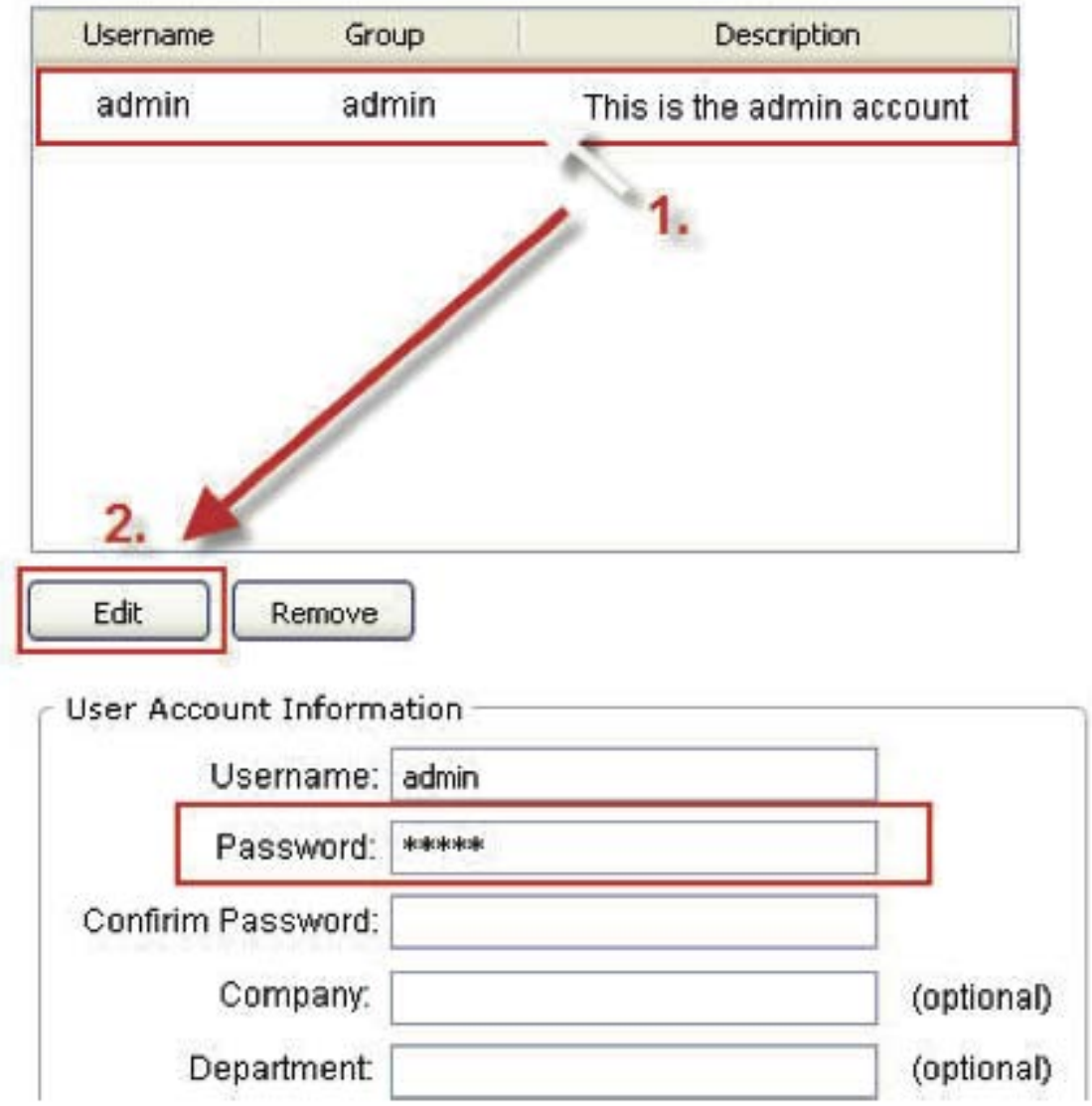


• Enter a username and password in "User Account Information". All other fields are optional for your own reference.

• Select a group from the "Group" drop-down menu to assign the new user to a particular group • Enter a short description for the account if you wish

• Click "Add" to finish configuration

Change the password of the "admin" account

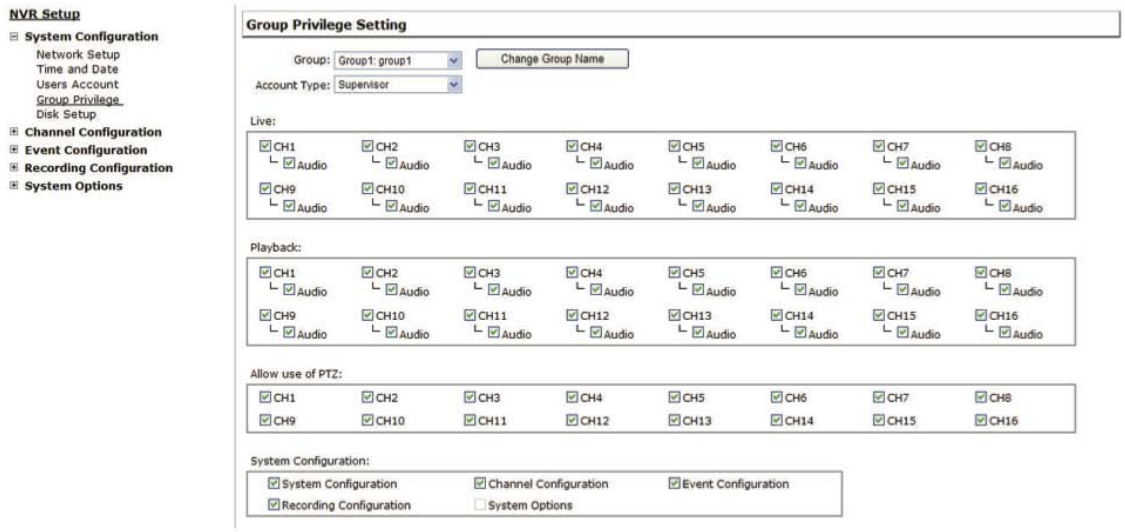


1. Click and highlight the "admin" account in the account list and click "Edit"

2. Its information should be displayed in "User Account Information"

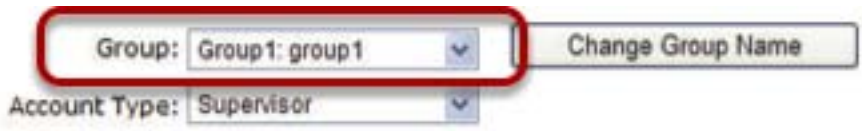
3. Enter a new password in the "Password" field and enter it again in "Confirm Password"

Group Privilege



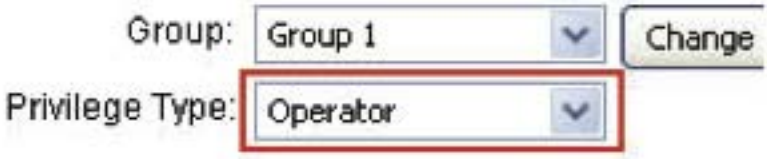
Group Privilege is where you can create multiple customized access policies for situations if you need the recorder to be accessed by users other than the administrator. You can do so by creating a group, and then remove access privileges for certain configuration pages or cameras. Users that are created and assigned to this group will have limited access instead of full administration rights.

The recorder comes with seven built-in groups and five built-in privilege profiles, except the "admin" and the "guest" accounts; the other five groups are fully customizable or you can simply assign a group with one of the default privilege profiles. You can, however, assign more than one users to the "admin" account if you wish to do so. The guest account comes with a "view-only" privilege in the "Live View" page, and users in this group do not have the power to make any changes in the "Live View" page or have access to pages other than the "Live View" page.

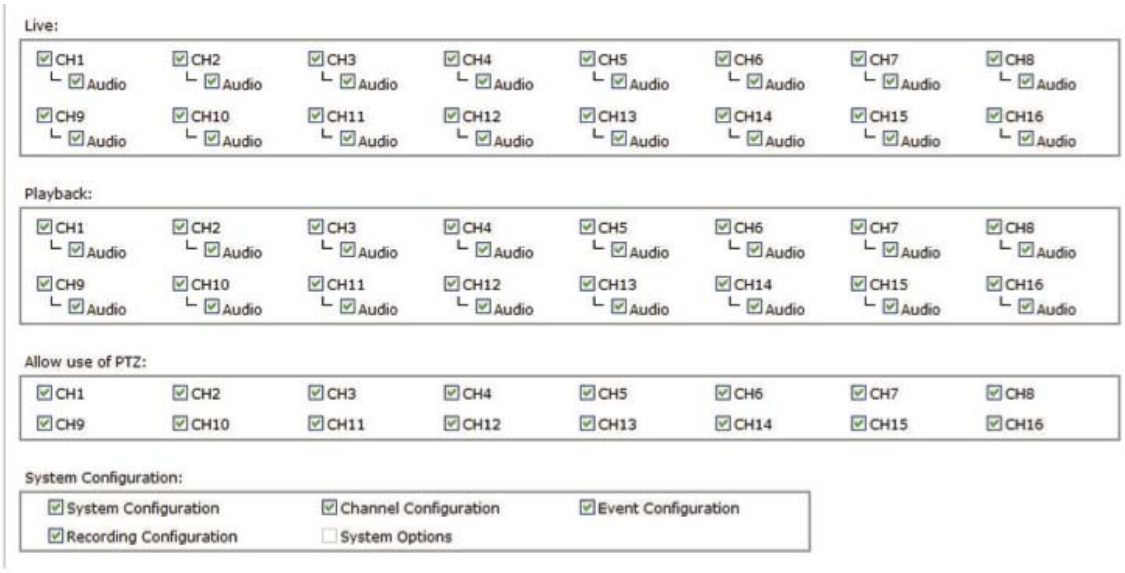


To create a group, select a group from the "Group" drop-down

You can change the group name by clicking the "Change Group Name" button. A text box will be displayed for you to enter the new group.

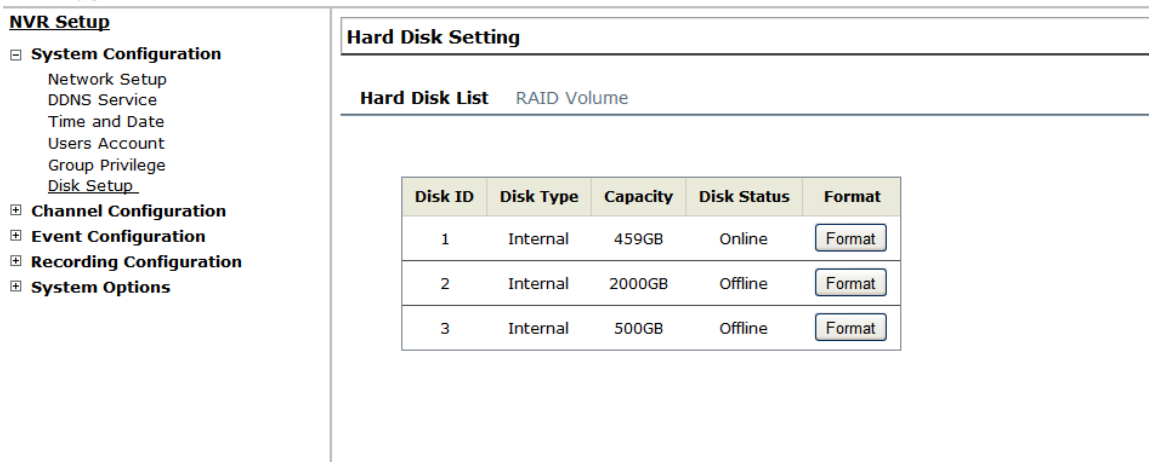


Choose what type of privilege you would like this group to have from the "Privilege Type" drop-down menu.



Its access privilege will then be displayed. You can alter its settings by allowing or denying access to other cameras using the checkboxes instead of accepting the defaults

Disk Setup



Once you install a hard disk to the recorder, you would need to initialize it so that it can be ready for recording. You can obtain basic information about the disk you installed in this page.

To initialize it, simply click the "Format" button.

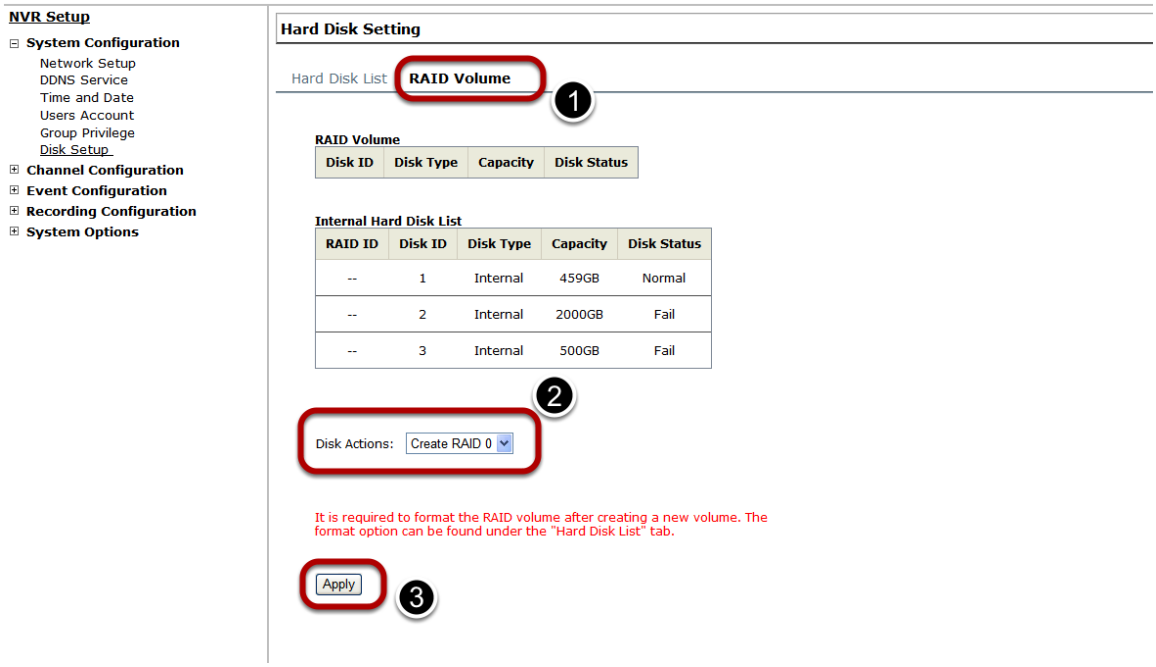
**This page will list the Internal disks (or RAID volumes), and the E-SATA disk only. The HDD will be formatted in EXT3 file system.*

**Due to the chipset limitation, "Hotswap" is NOT supported for E-SATA HDD. Please make sure to power on the E-SATA external HDD and plug it in to the NVR before the NVR is turned on.*

**The USB HDDs will only be listed in the "USB Backup" and "Hard Disk Status pages in "System Options". The USB HDDs have to be formatted in advance in FAT16/FAT32 or EXT3 file system. (FAT32 is recommended)*

** Please plug in the USB HDD only after the NVR is fully started. The internal HDDs will NOT be properly detected if the NVR is powered on with USB HDD plugged in*

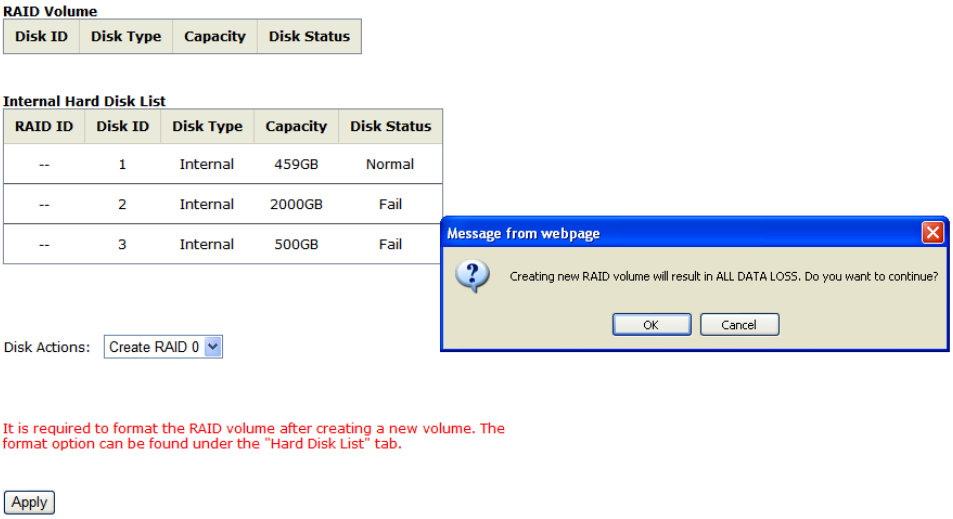
Build RAID Volume



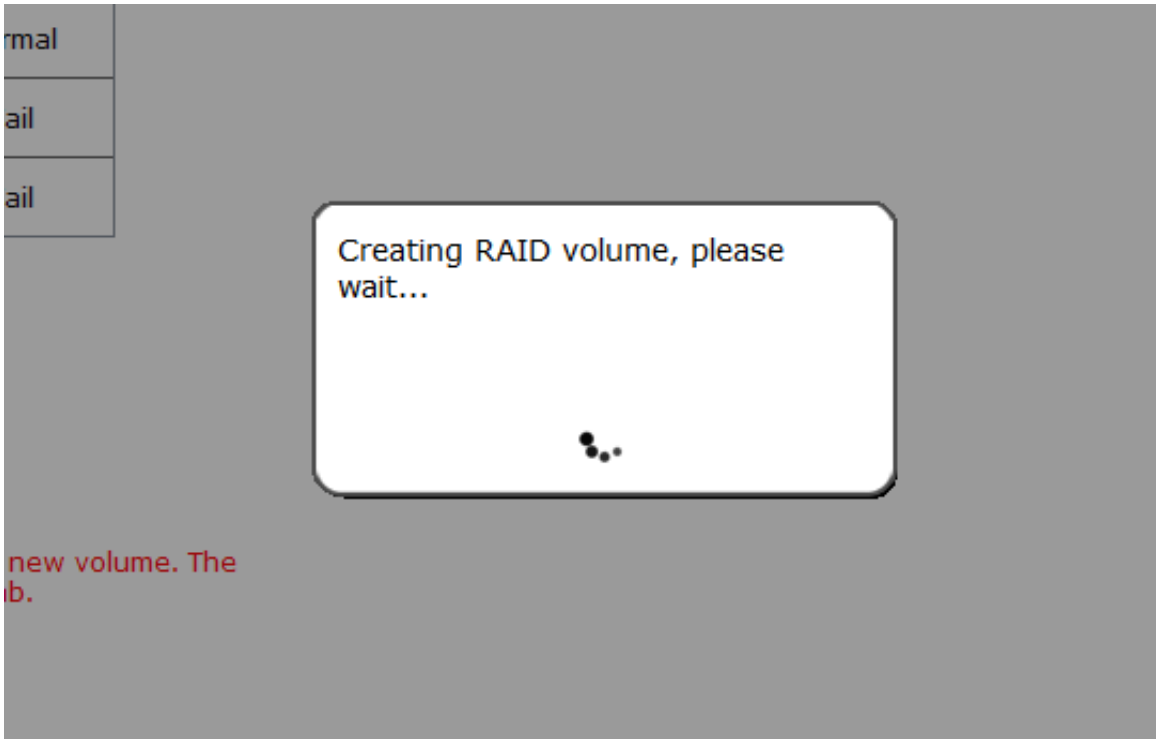
The internal HDDs can be used for RAID. To do so, go to "RAID Volume" in Disk Setup and choose the available disk action.

RAID Type	HDD #	Allow Failed HDD	Capacity
RAID 0	2-4	0	(HDD#) x (Smallest HDD size)
RAID 1	2-4	(HDD #) - 1	Smallest HDD Size
RAID 5	>=3	1	(HDD# -1) x (Smallest HDD size)
RAID 10	>=4	1 HDD within each RAID 1 group	(HDD# / 2) x (Smallest HDD size)

The "Disk Actions" drop-down menu displays available actions based on how many HDDs are installed in the NVR. For detail, please refer to the table above.

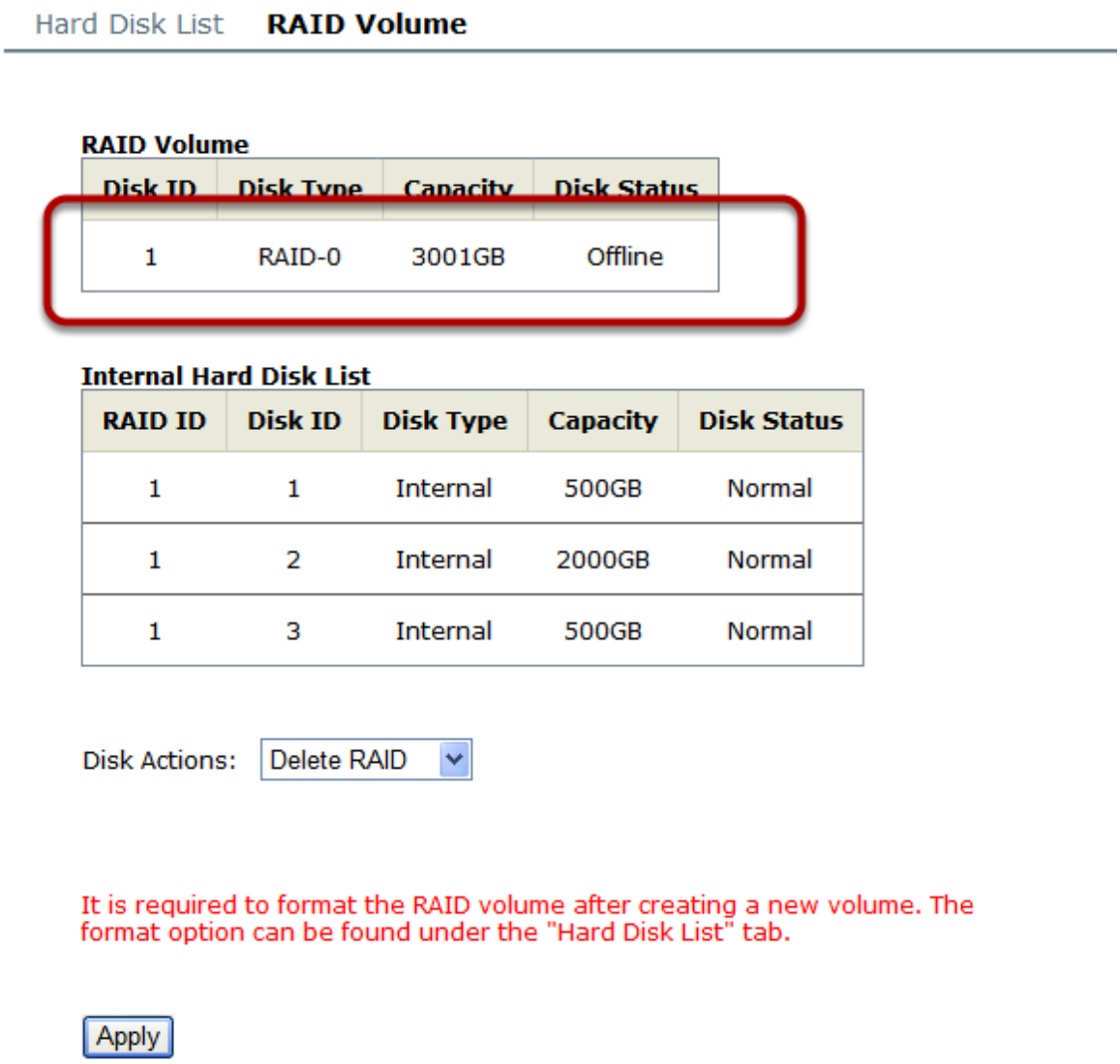

RAID Volume
Disk ID
Disk Type
Capacity
Disk Status
Internal Hard Disk List
RAID ID
Disk ID
Disk Type
Capacity
Disk Status
-- 1 Internal 459GB Normal
-- 2 Internal 2000GB Fail
-- 3 Internal 500GB Fail
Message from webpage
Creating new RAID volume will result in ALL DATA LOSS. Do you want to continue?
OK
Cancel
Disk Actions:
Create RAID 0
It is required to format the RAID volume after creating a new volume. The format option can be found under the "Hard Disk List" tab.
Apply

Select a disk action and click "Apply" to proceed. A warning dialog will be displayed as creating RAID volume will erase all existing data on the HDDs. Click "OK" to continue.

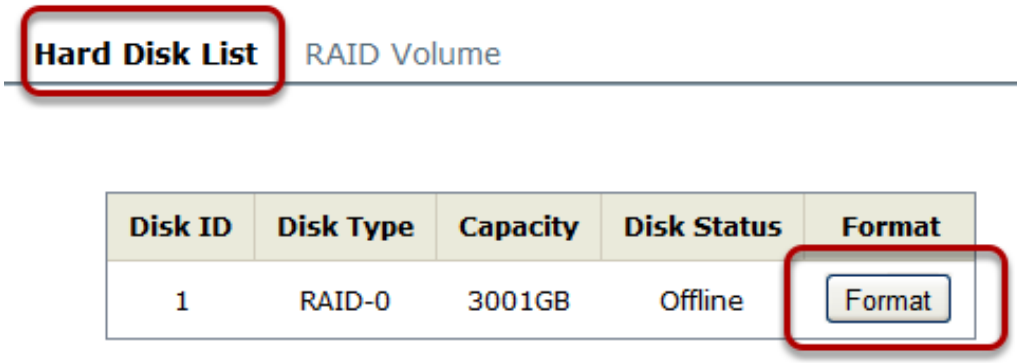


Please wait for a few moments while the NVR is creating the RAID volume.

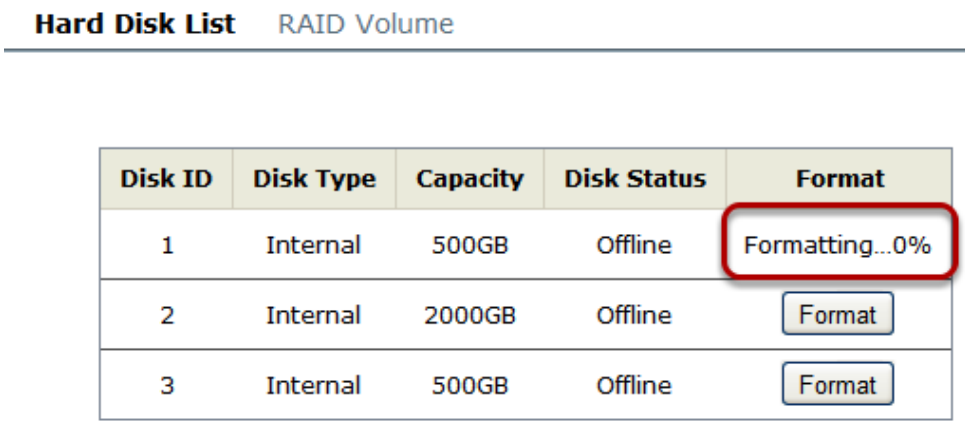
You will be prompted once the action is completed successfully.



Once the RAID volume is created, it will be listed in the "RAID volume list with the status of "Offline"

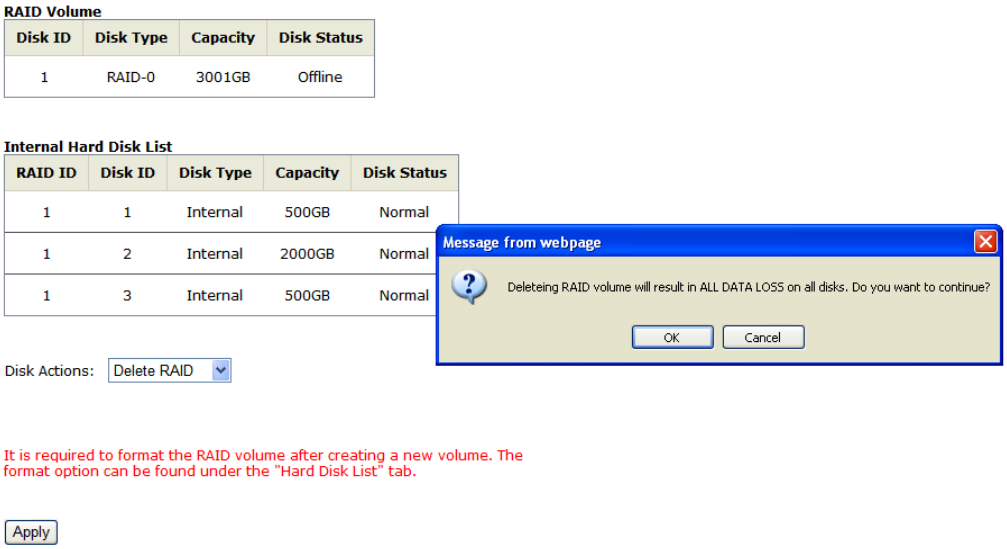


Go back to the "Hard Disk List" page and the RAID volume should be in the list. Click "Format" to bring the RAID volume online.



The status will be displayed just as if you were formatting any internal HDDs

Deleting RAID



Once a RAID volume is created, it can be deleted at anytime by choosing the "Delete RAID" action in the RAID volume page. All existing data will be removed after the RAID volume is deleted.

All internal disks that were originally used for RAID volume will have to be formatted again after the RAID volume is deleted.

Notes for RAID function

* Once a RAID volume is created, the "Delete RAID" option should be presented in the "Disk Action" drop-down menu. (Regardless the RAID volume has been formatted or not)

* Only RAID1 and RAID 5 have repair function

* The recording should continue even when RAID 1 or RAID 5 volume fails or is rebuilding.

* The replacement hard drive size must be larger or equal to the size of the smallest disk in the volume.

* The internal disks do not need to be formatted prior to creating RAID volume.

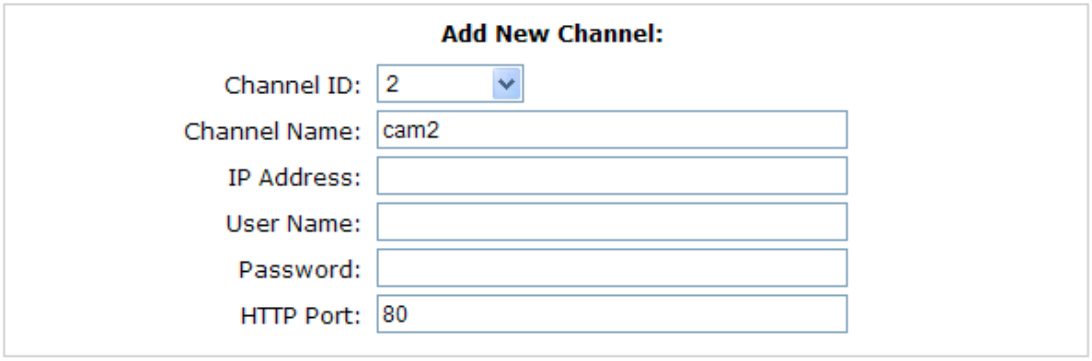
* Create RAID with an existing RAID volume is not allowed.

* Once a RAID volume is deleted, all internal disks within that RAID should become offline and need to be formatted again before they can be used individually.

* All internal disks (or RAID volumes) need to be formatted before they can be used.

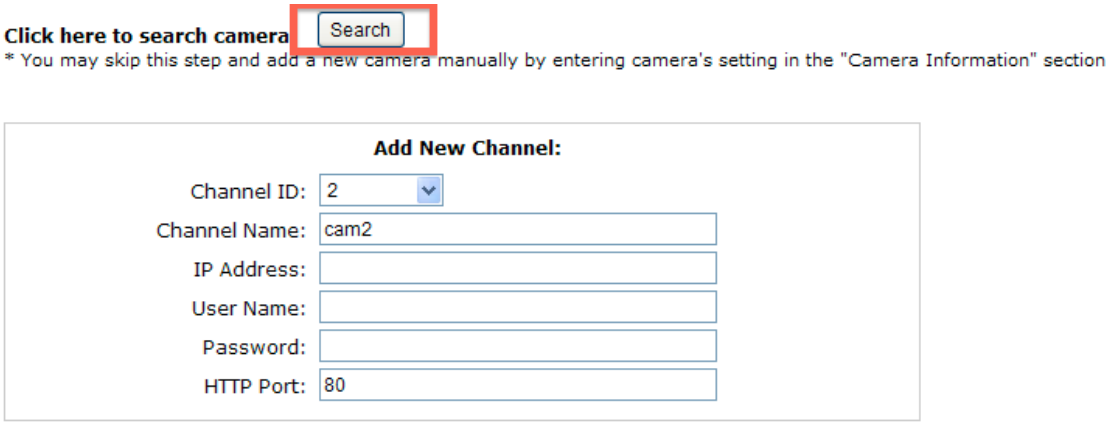
NVR Setup -- Channel Configurations

Add a camera



The NVR provides two options for adding a new camera. Users have the option to let the recorder automatically find the cameras or it is possible to enter camera's information and add it manually.

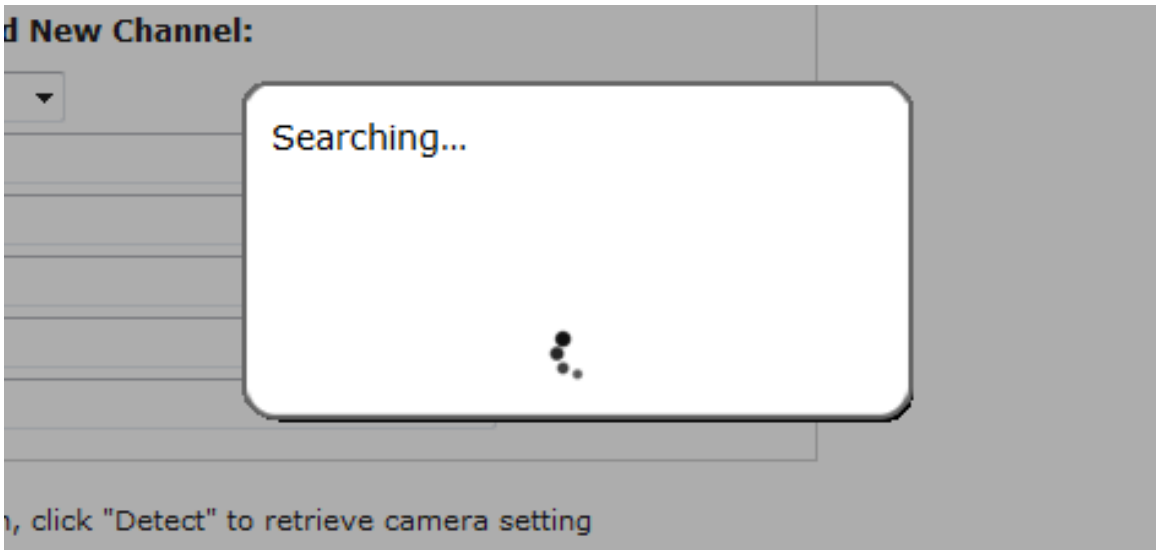
Automatic Search


Click here to search camera
Search
* You may skip this step and add a new camera manually by entering camera's setting in the "Camera Information" section
Add New Channel:
Channel ID: 2
Channel Name: cam2
IP Address:
User Name:
Password:
HTTP Port: 80

Click the "Search" button to perform the camera search.

Internet Explorer - Security Warning
Do you want to install this software?
Name: ActiveX Control of Media Client
Publisher:
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

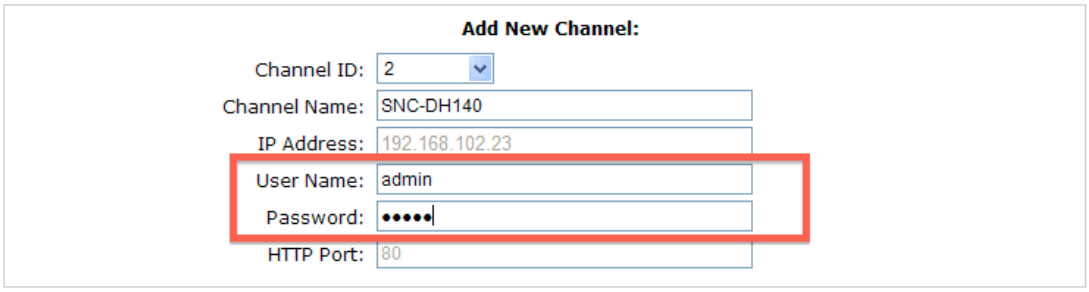
You should be prompted to install Active Control component the first time you visit the page in order for the search to function properly. Go ahead and click "Install"



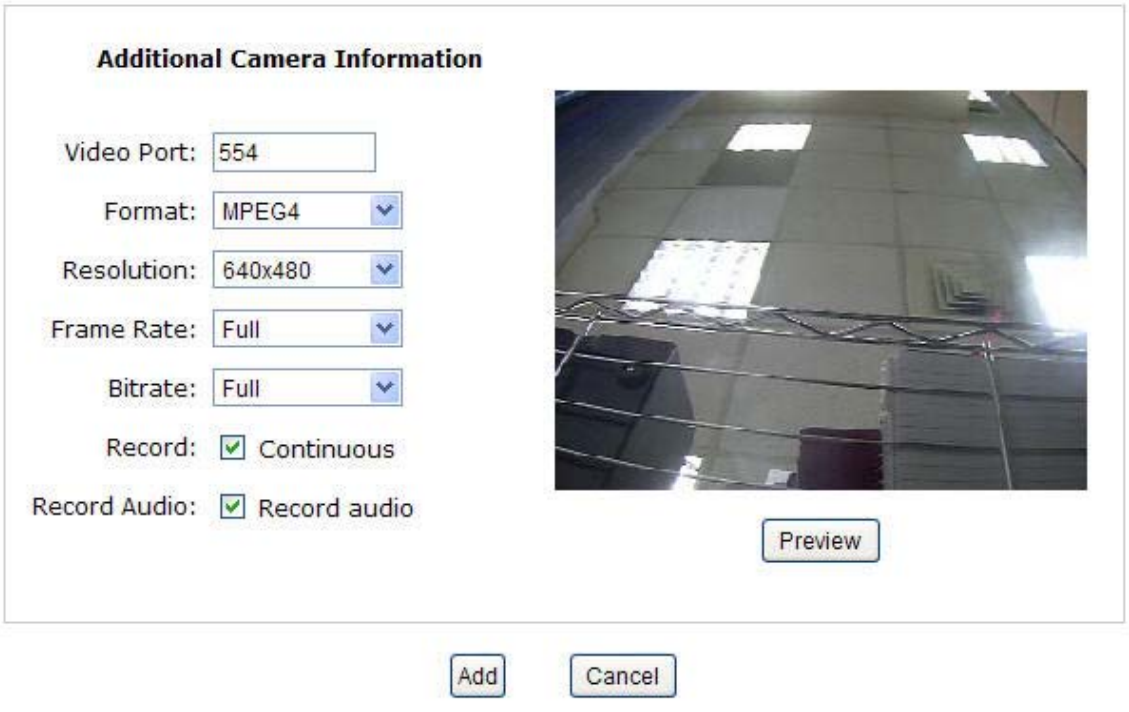
Once you have the ActiveX component installed, the search status should be displayed after clicking "Search"

AXIS P3301 192.168.101.86 80
Configure
*Select a camera from search result and click "Configure" to configure setting below.

Found cameras should be listed and simply select a camera from the list and press "Configure"



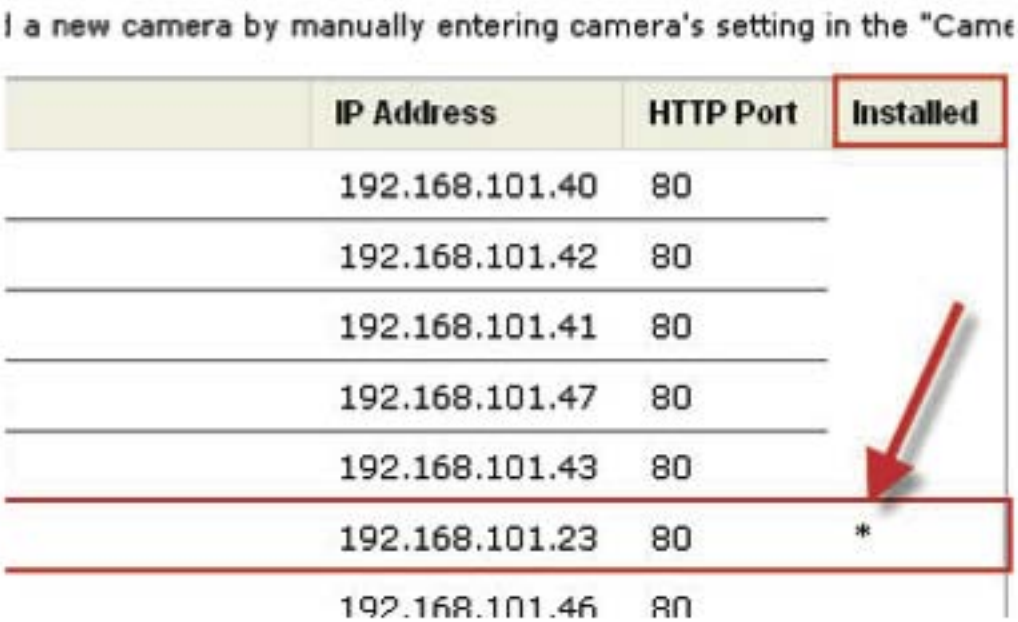
Its corresponding information should be displayed in the "Camera Information" section. Enter its username and password and select the channel ID and name the camera.



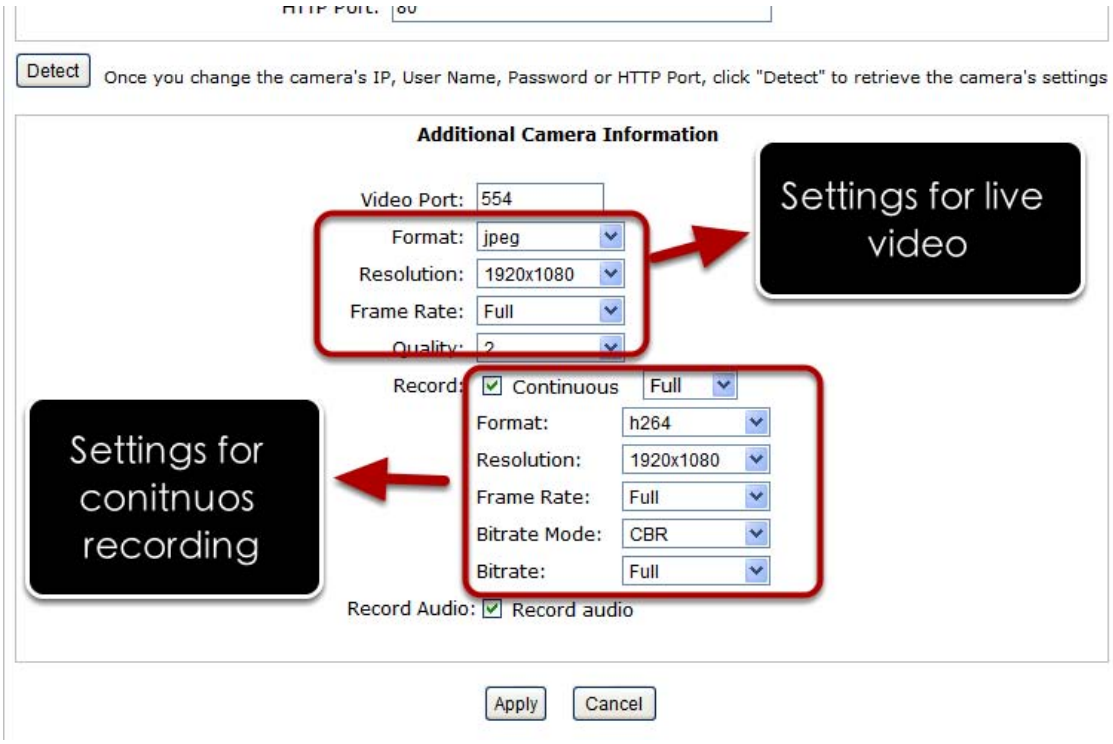
Click on "Detect" to establish connection between the recorder and the camera. If connection establishes successfully, camera's detailed information should be polled and displayed as below.

Adjust its video format, frame rate, resolution or bitrate...etc. if you wish. You can also click on the "Preview" to preview the live video of the camera.

Click "Add" to finish adding the camera



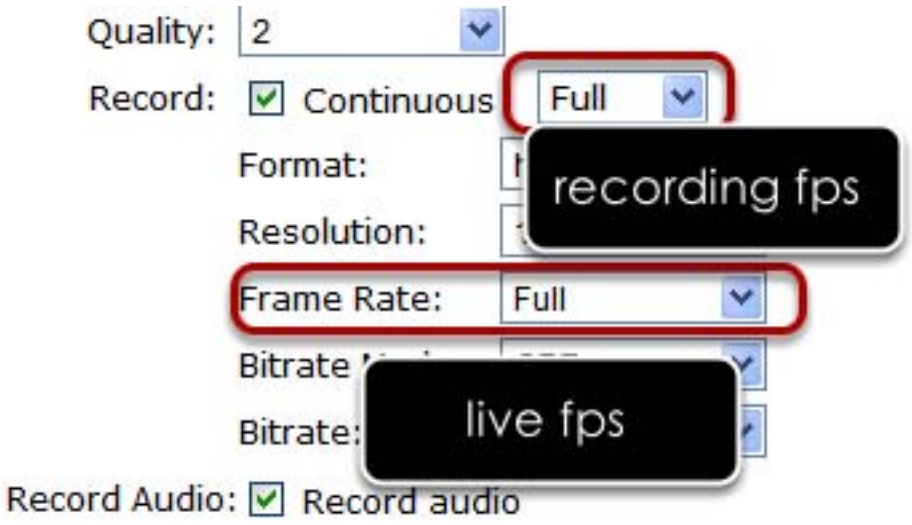
**If cameras are marked with "*" in the search result, it means those cameras are already configured and connected to the NVR.*



Once the camera's settings are polled and displayed, you can also enable "continuous" recording and adjust its recording quality settings before adding the camera.

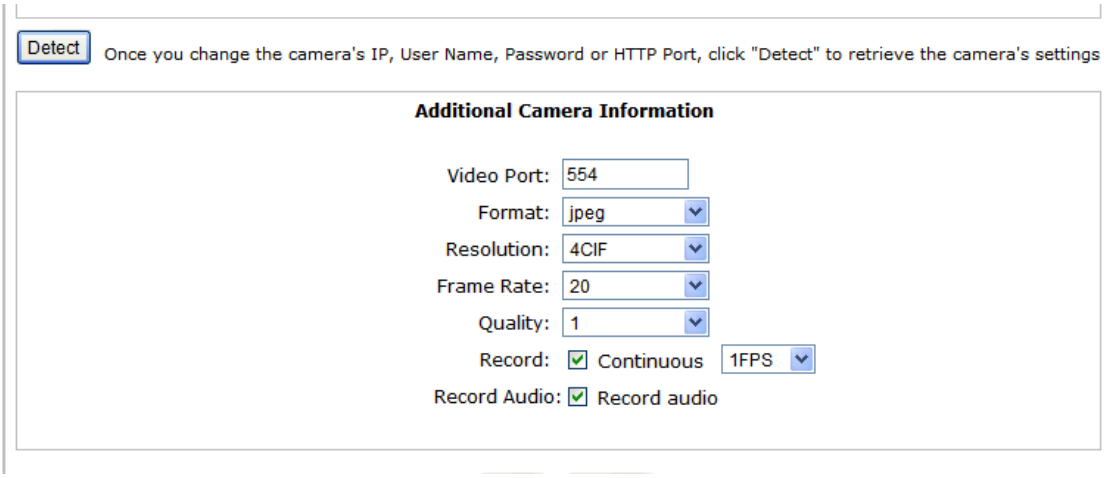
Some cameras are capable of multiple streaming profiles, in which different video codecs are used for different purposes.

You will be able to use different video format for continuous recording if it's a multi-stream capable camera.



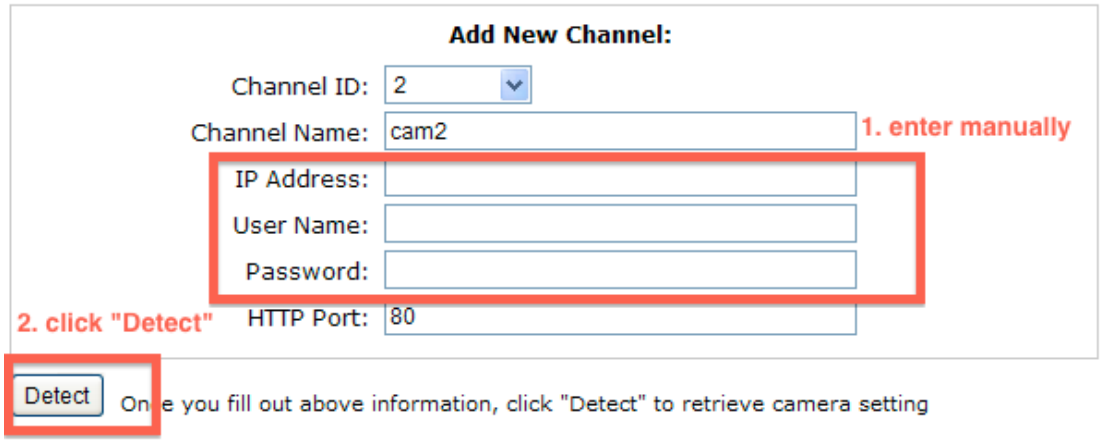
There are two types of fps settings here, one is the fps that NVR sets back to the camera, and this is the fps NVR will be receiving from the camera. The other is recording fps, which will be limited by the live fps. (ex. if the live fps is set to 10, choosing "Full" in the recording fps meaning it will only record at 10fps maximum.

For MPEG/H.264, only i frame or full (i+p frame) can be selected for recording fps.


Detect
Once you change the camera's IP, User Name, Password or HTTP Port, click "Detect" to retrieve the camera's settings
Additional Camera Information
Video Port: 554
Format: jpeg
Resolution: 4CIF
Frame Rate: 20
Quality: 1
Record: Continuous 1FPS
Record Audio: Record audio

For single stream camera, only the recording fps can be adjusted.

Add a camera manually

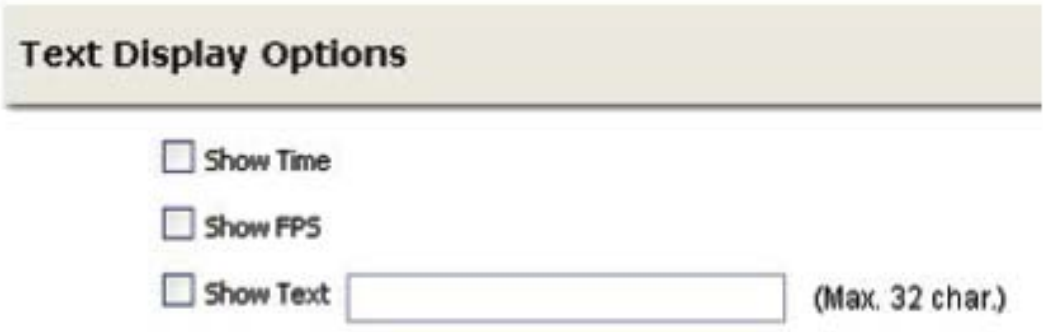


Simply follow the instruction described above but instead of using the "Search" function, enter the camera's IP address and credential in the "Camera Information" manually.

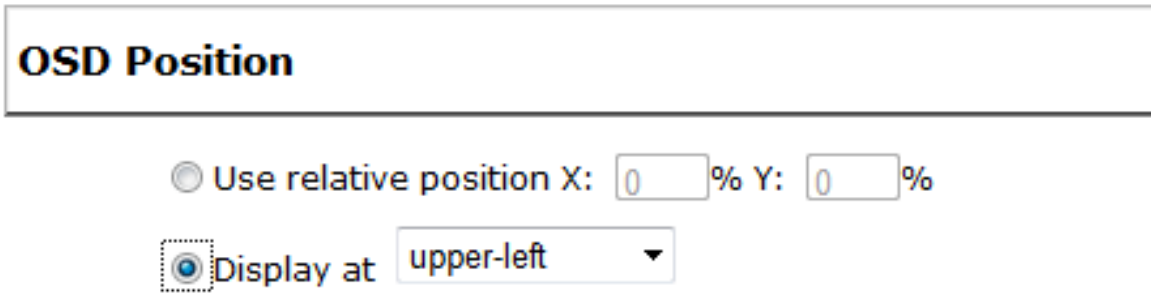
OSD Settings

The OSD (On Screen Display) allows users to add informational text message and embed it onto the video. By default, this function is turned off. To add texts to one or more videos:

Select a camera you would like to add text to and choose "Display OSD"

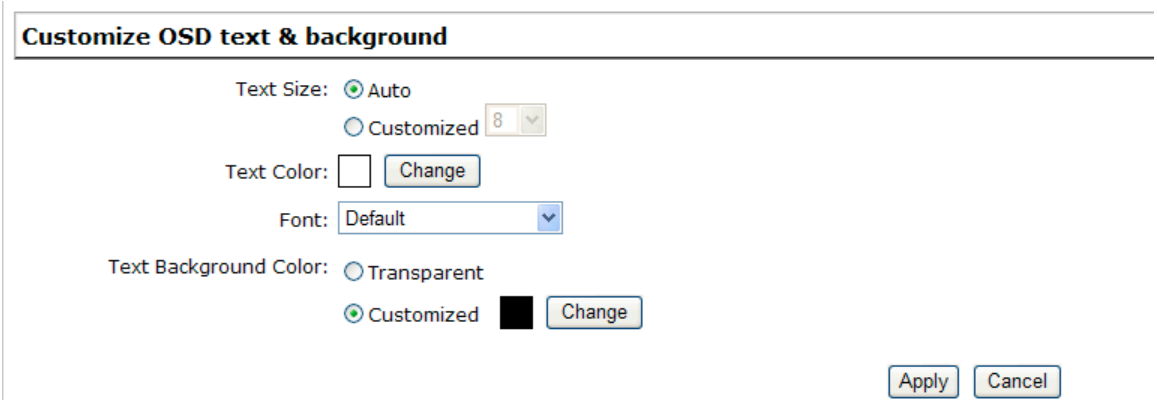


Choose one or more display options if you would also like the recorder to automatically embed the system time or the frame rate for you. Or simply choose to display a custom message of your own.



Next, define where the text will be displayed by either entering an X/Y value based on percentage or use the system pre-defined position from the drop-down menu.

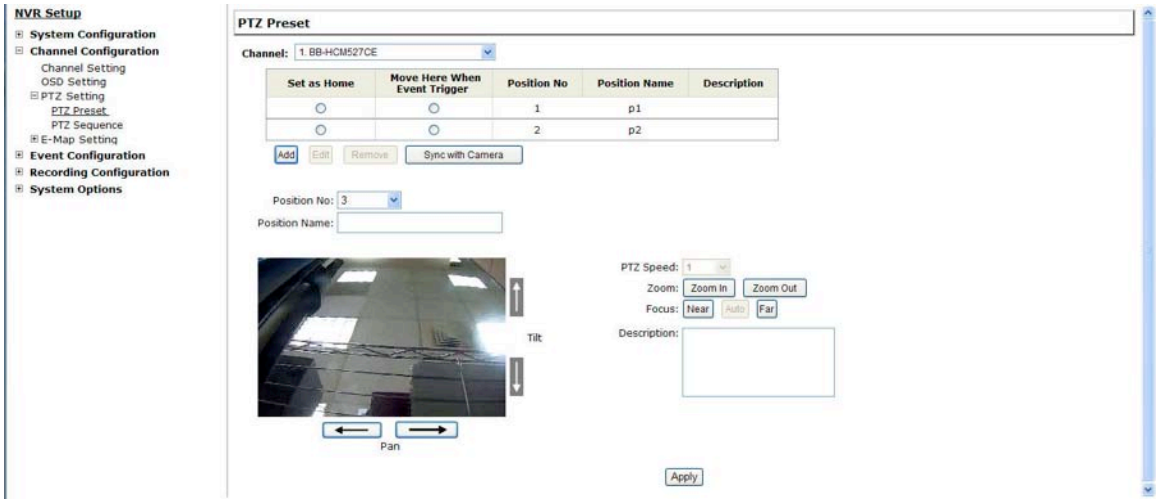
Click on the "Preview" button to see the preview of your setting and click "Apply" to save the configuration.



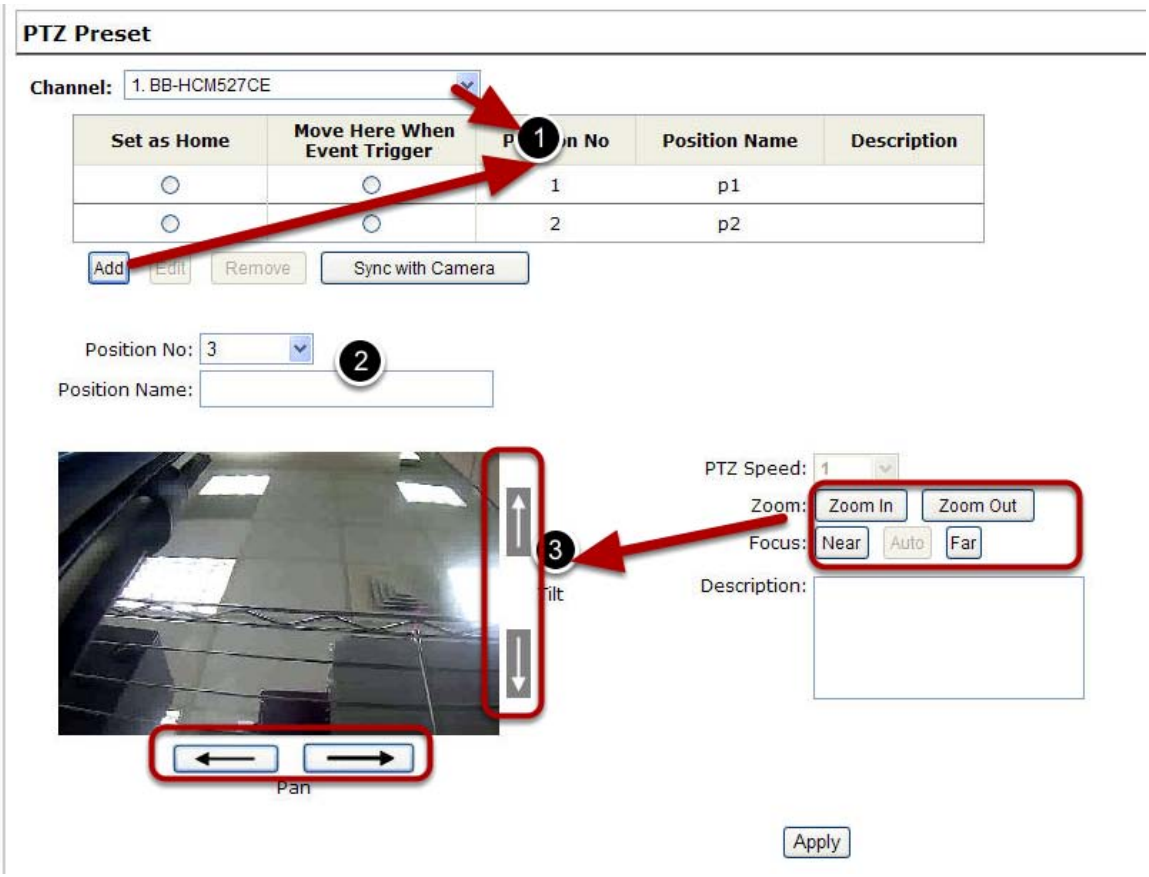
The texts can be further adjusted with changes to different size, color or font so they can be more visible on the video.

PTZ Setting

PTZ Preset Settings



The recorder supports PTZ cameras and can set multiple preset points or retrieve and manage preset points that are set in the camera. This is helpful if you need to monitor multiple spots in one area from a particular camera.

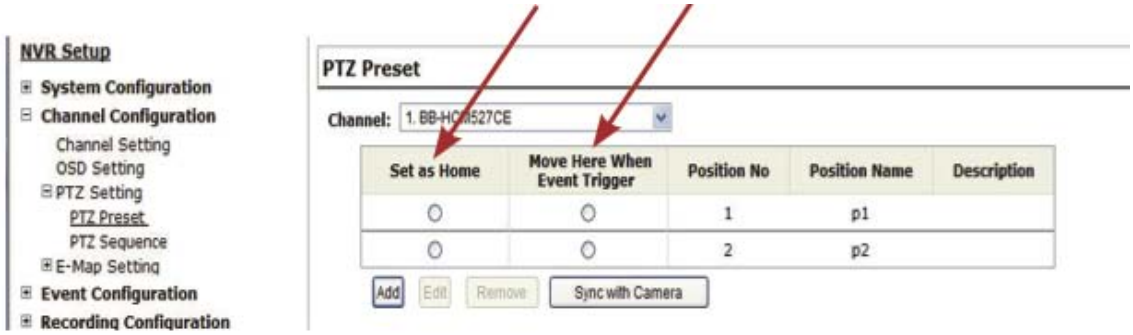


To set up PTZ preset points:

1. Select a camera from the "Camera" drop-down menu and click "Add".

2. Select a position number for the preset point from the "Position Number" drop-down menu and fill in a name in the "Position Name" field for easier identification.

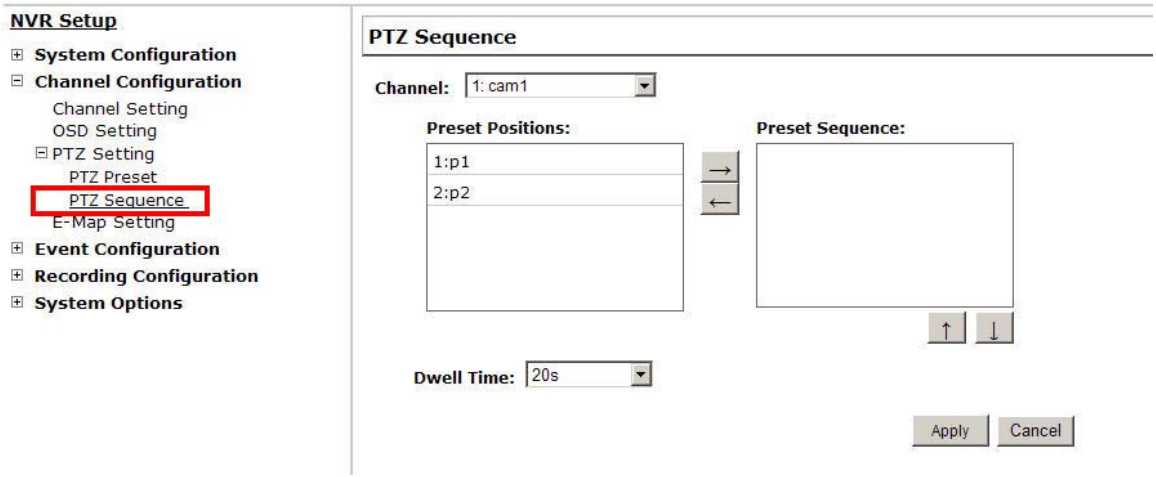
3. Use the PTZ control provided in the configuration page to set the preset point



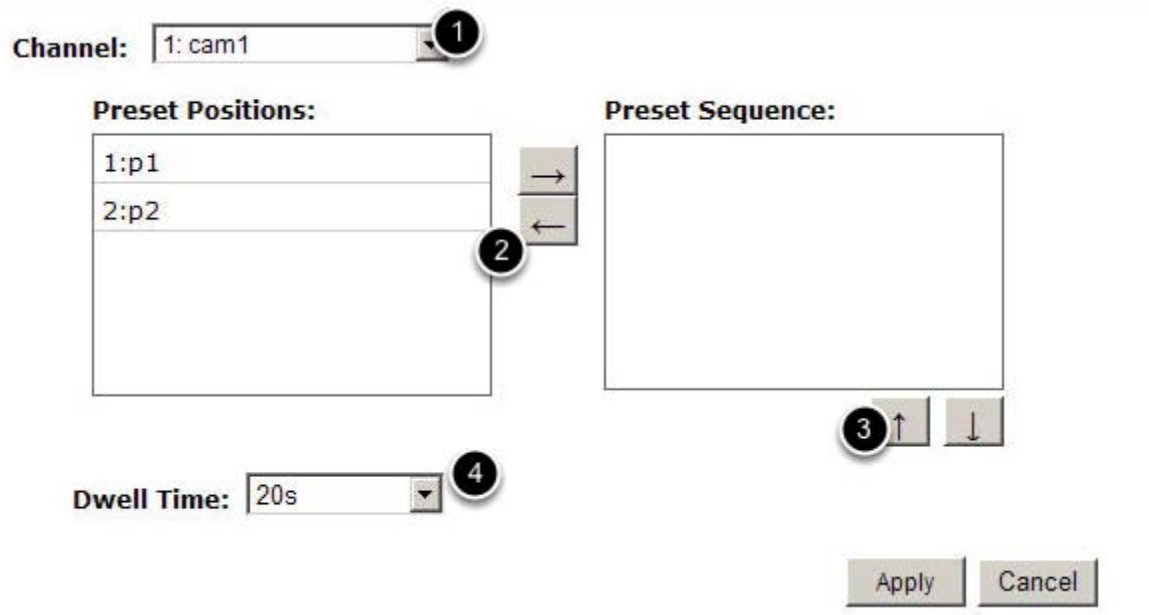
Ultimately, you can choose to make this preset point a "Home" point among all other preset points, as well as making the camera to move to this particular point when an event is triggered.

** "Move Here when Event Trigger": In order for this function to work properly, please also complete configuration in "Event Configuration" >> "Event Trigger"*

PTZ Preset Sequence



Once you have multiple preset points defined for a camera, it is convenient for monitoring to set up the sequencing viewing among those preset point and let the recorder automatically switch between them for you.



To configure preset sequence for a camera,
1. Select a channel from the "Channel" drop-down menu. The available preset points should be listed in "Camera Presets" section.

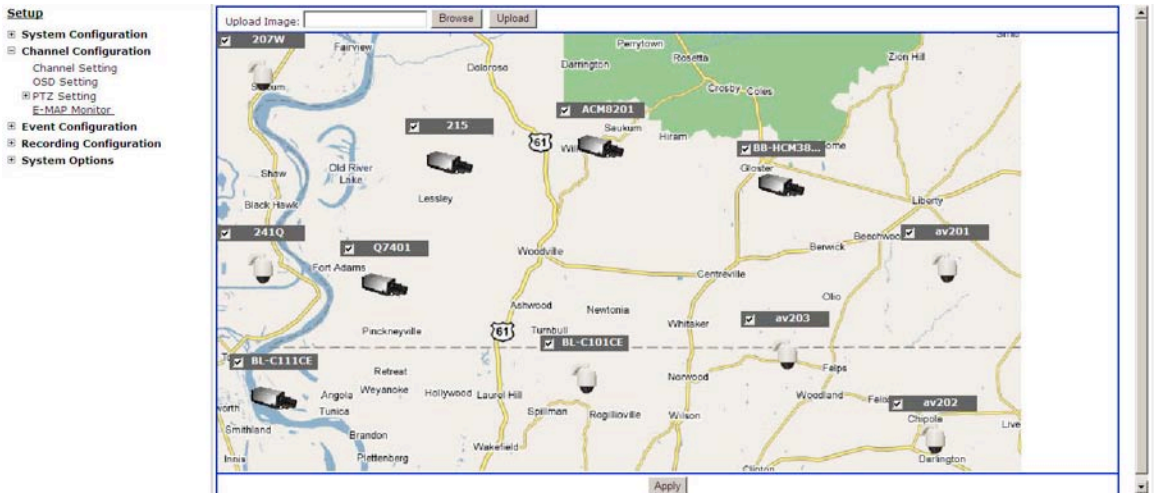
2. Pick the ones you like for sequence viewing and press the "->" button to move them to the "Preset Sequence" section, then

3. Use the up and down buttons to adjust their sequencing positions.

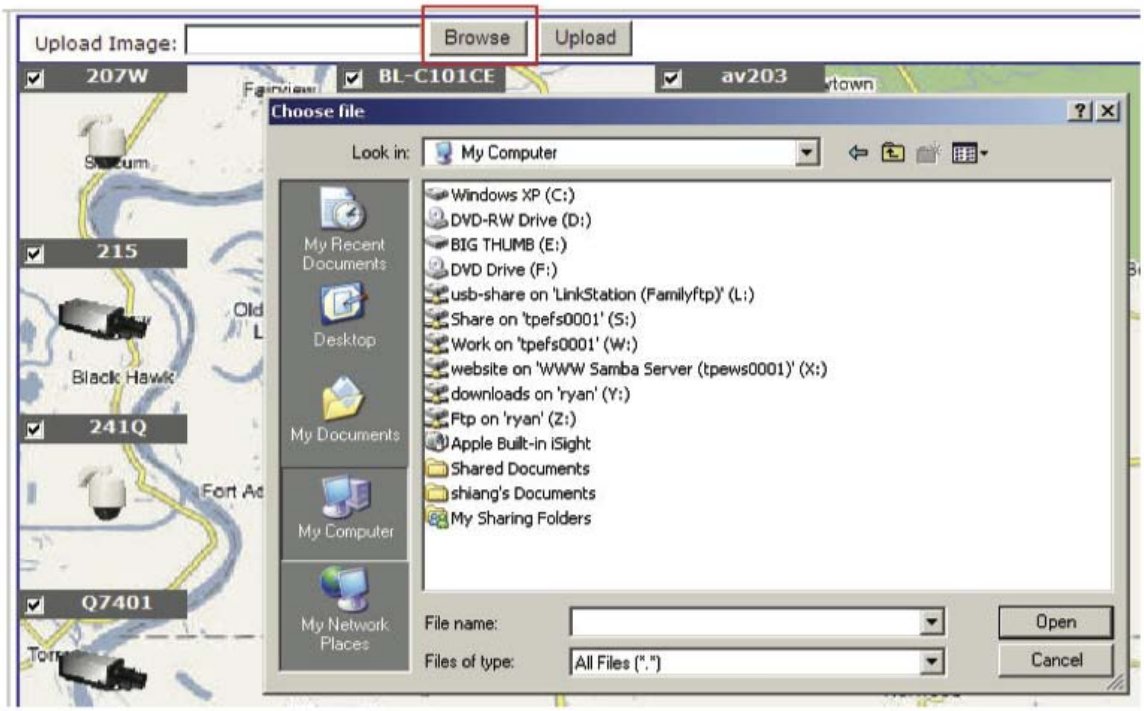
4. Finally, select a dwell time from the drop-down menu and click "Apply" to save the configuration

E-Map Setting

Local E-Map Setting

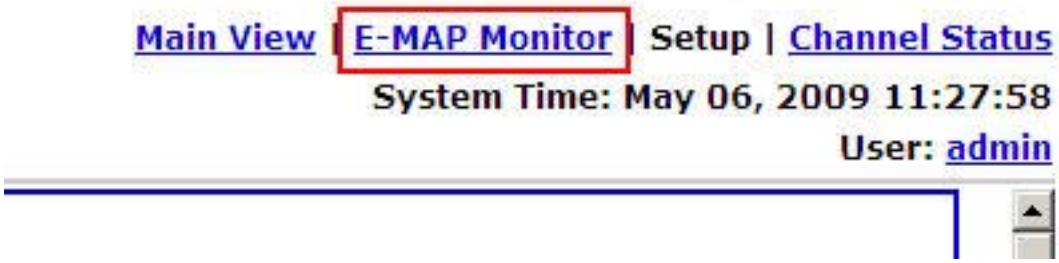


E-Map monitor is a function that alerts users whenever there is an event triggered (e.g. motion detected) from a camera with a geographical perspective. With this function, users can quickly identify which camera has detected an unusual event and where this event is happening. This function works by incorporating the event detection function as well as the recording function, which, as a result, helps users take all the necessary actions when an unusual event occurs.



To replace the map, click "Browse" button to locate the new map image file from the local PC and then click "Upload".
** Only JPG, PNG, and GIF file formats are supported with file size under 100KB.*

Then click and drag the camera icon to move the camera to define its location.



Access the E-Map Monitor page from the upper-right hand corner menu.

When the NVR receives an event triggered from any of the cameras, their videos will be displayed on the E-Map and you can double-click on the video to enlarge it.

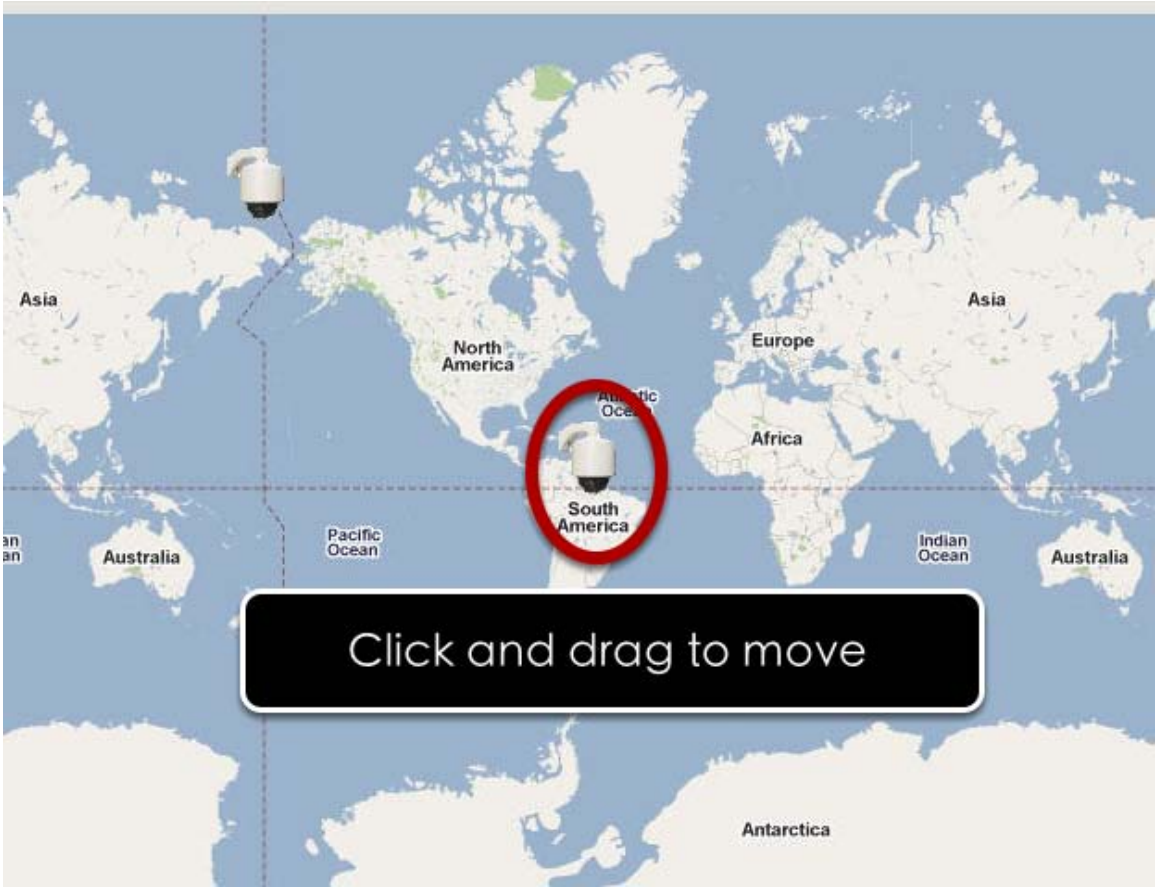
Google Map Setting

The Google Map monitor is a similar function to the aforementioned E-Map monitor. It is useful if you are managing multiple cameras from different locations.

To configure locations of each camera, first determine the location you'd like to place the camera to on the map. You can do so by:

1. Zoom in to a smaller area by using the zoom control bar on the map
2. Zoom in to a smaller area by using the mouse scroll button

You can also go to a specific place on the map by entering its address or the name of the place in the "Address or places of interest" field



Once the location has been determined, click and drag the camera icon to move it to the desired location

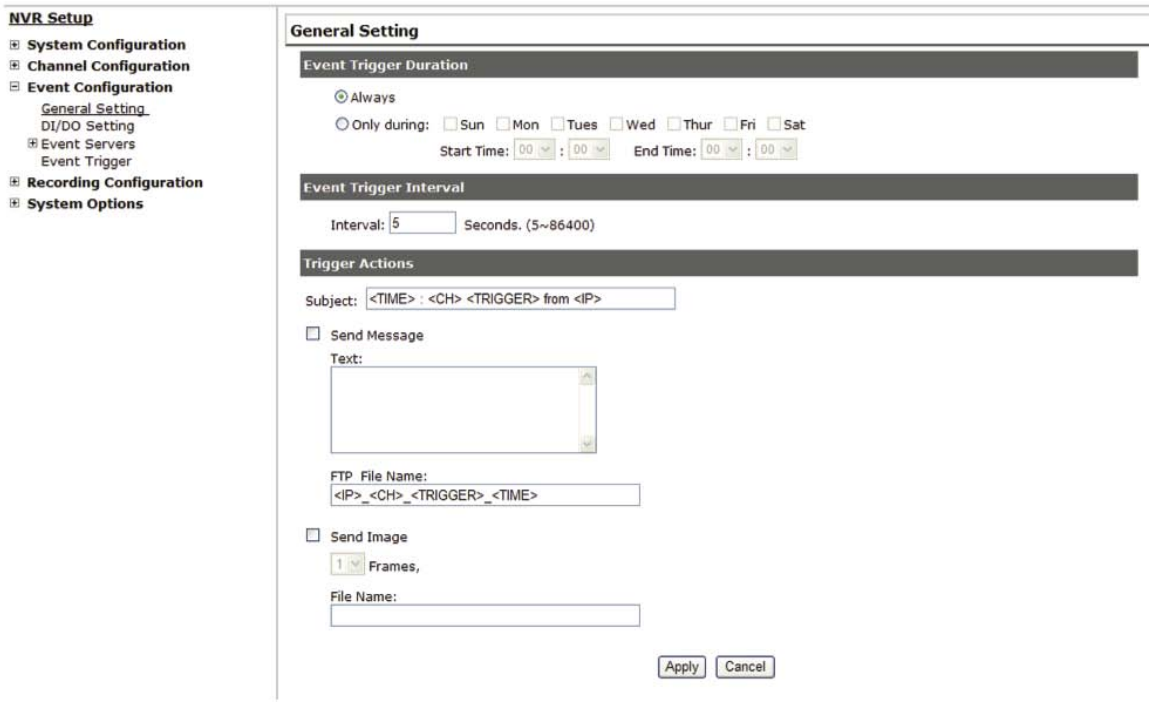
** The Google Map Monitor requires active Internet connection and can not be used in conjunction with the regular E-Map monitor function.*

NVR Setup -- Event Configurations

Event Configuration

The "Event Configurations" section allows users to define conditions that constitute an event, its corresponding trigger action and when it will be triggered. Such setting can reduce the management overhead and notify the administrator only when it's necessary.

General Settings



The general settings section can help you quickly configure when an event is triggered, how often events are triggered and the corresponding actions when events are triggered.

Start the event configuration by defining the general settings:

Define when an event will be triggered

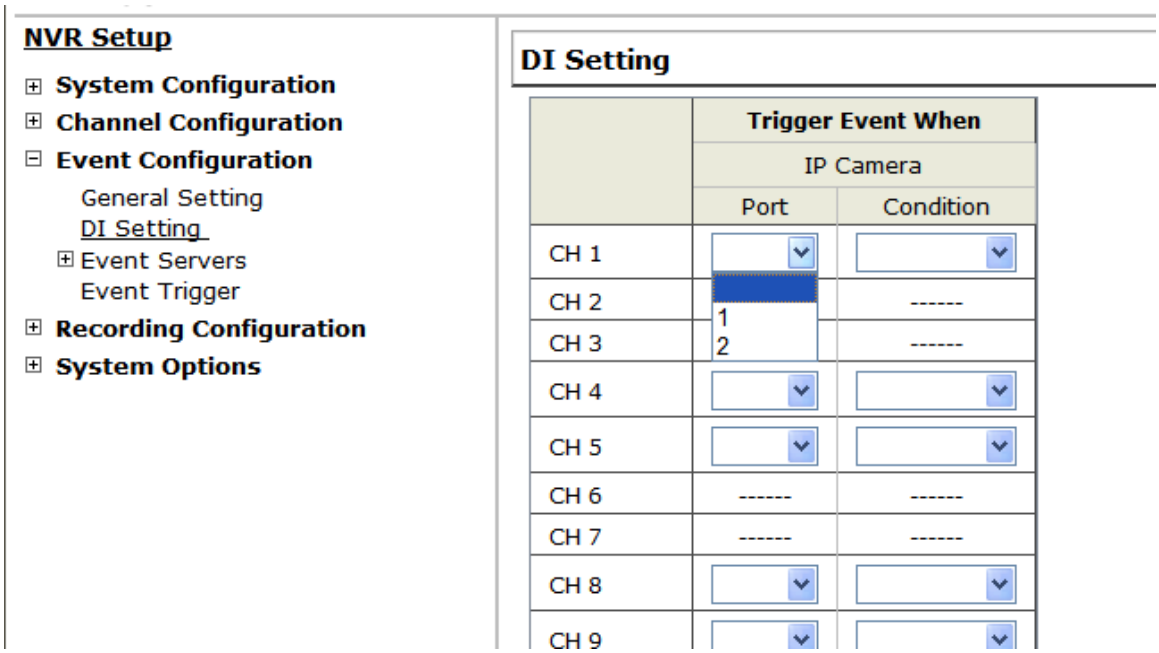
• Choose "Always" or "Only during..." under "Event Trigger Duration"
• For the "Only during..." option, choose the days by using the check-box and then define the time range in those days in the "Start Time" and "End Time" fields that you would like the event trigger function to be enabled.

How often an event is triggered
• Set a time interval under "Event Trigger Interval" to define how often events are triggered

Trigger action
Now that you have the event trigger duration and interval defined, choose what action to be taken during an event trigger:
• You can choose to have the recorder send out the first few frames of the video recorder upon an event is triggered • You can also choose to have the recorder send out a warning message in e-mail or in txt file format and upload it to an destined FTP server

I/O Settings

This function allows users to manage camera's digital input and output ports right from the recorder. You can setup the recorder to receive triggers from a particular camera's input port and trigger a device, such as an alarm that is connected to the recorder or camera's output port. Cameras that do not have built-in digital input/output port can also be configured to pair with the recorder's DI/DO ports.



1. For cameras that come with physical digital input ports, their ports will be listed in the far left drop-down menu.
2. Pick the desired channel for I/O mapping, and then select the camera's input port from the drop-down menu.
3. Select the trigger condition from the "Condition" drop-down menu.

**The recorder does not control camera's input or output ports in a way to let you pair recorder itself with a camera's input or output port for event receiving or triggering.*

**The recorder only acts as a medium for pairing up input/output ports between cameras and the recorder.*

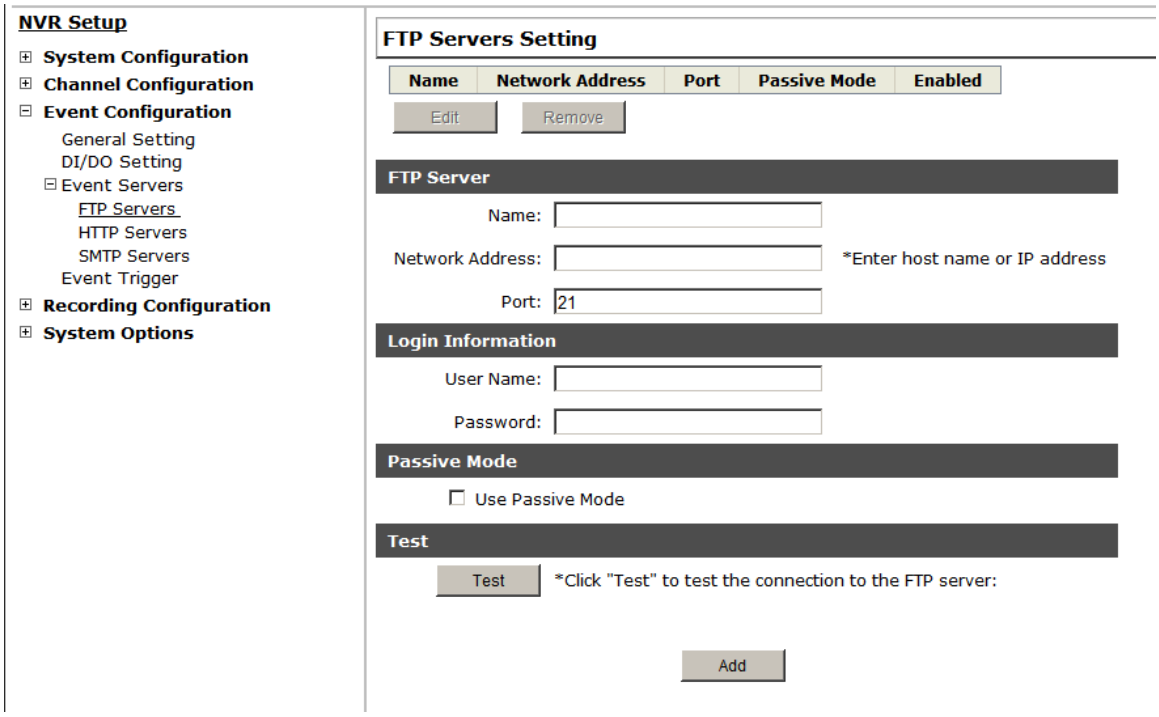
**Only connected cameras will be displayed in the list.*

**Some cameras only allow one trigger source be configured at a time, e.g.:*
if the camera has the motion detection function turned on, its digital input will be disabled and vice versa. Under such circumstance, if you set to use camera's digital input port as the event trigger source, you will not be able to select motion detection as the trigger source for this camera under "Event Configurations" >> "Event Trigger" setup page.

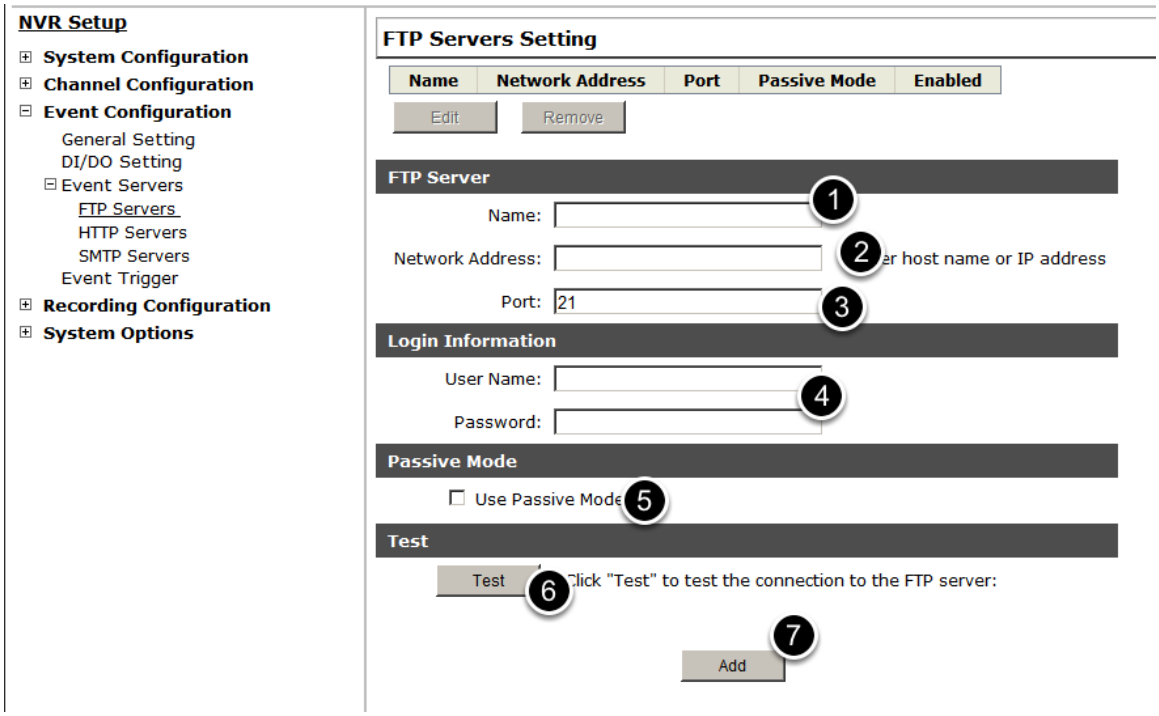
- *The image(s) that are uploaded to the destined FTP server or emailed to a destined mail recipient are in their own proprietary image file format (.h4i or .p4i), which can only be opened by the NVR media player.*
- **.h4i if event was recorded in H.264, .p4i if event was recorded in MPEG4. .jpg if event was recorded in MJPEG.**

Event Servers

Configuring an FTP server



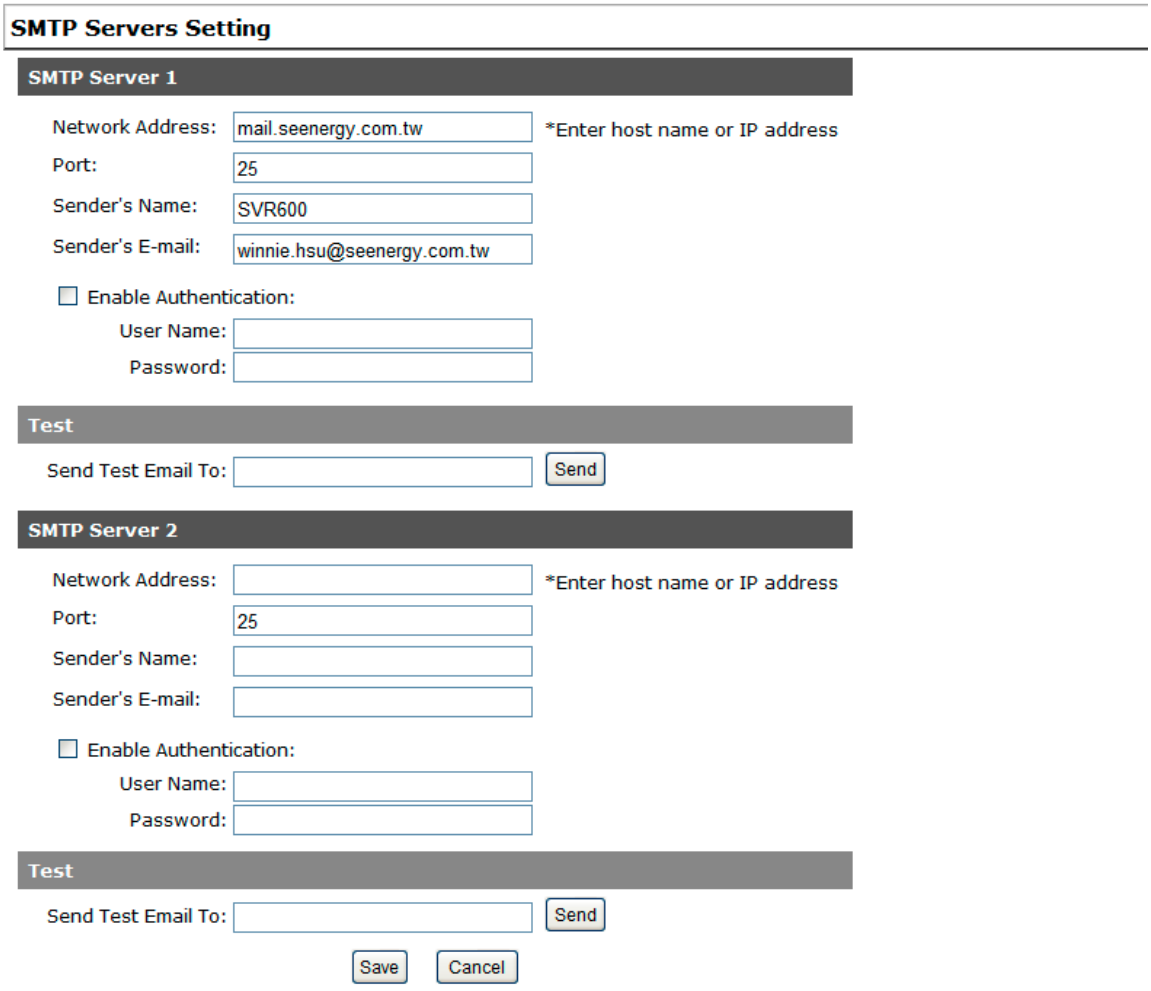
Event servers are to be used with event trigger actions. In case of unusual motion detected by the camera or a disk failure, the recorder can send notification with the acceptable format (image/txt) to a destined event server according to the configuration.



To add an FTP server,

1. Start by giving a name to the server that you are adding to the recorder
2. Enter the hostname or the IP address of the FTP server
3. Enter the communication port of the FTP server (usually port 21)
4. Enter the username and password of the FTP server if it's required
5. Check "Use Passive Mode" if it's required or leaves it unchecked to use active mode
6. Click "Test" to verify if all information is entered correctly and the connection to the FTP server can be established successfully
7. Click "Add" for the settings to take effect

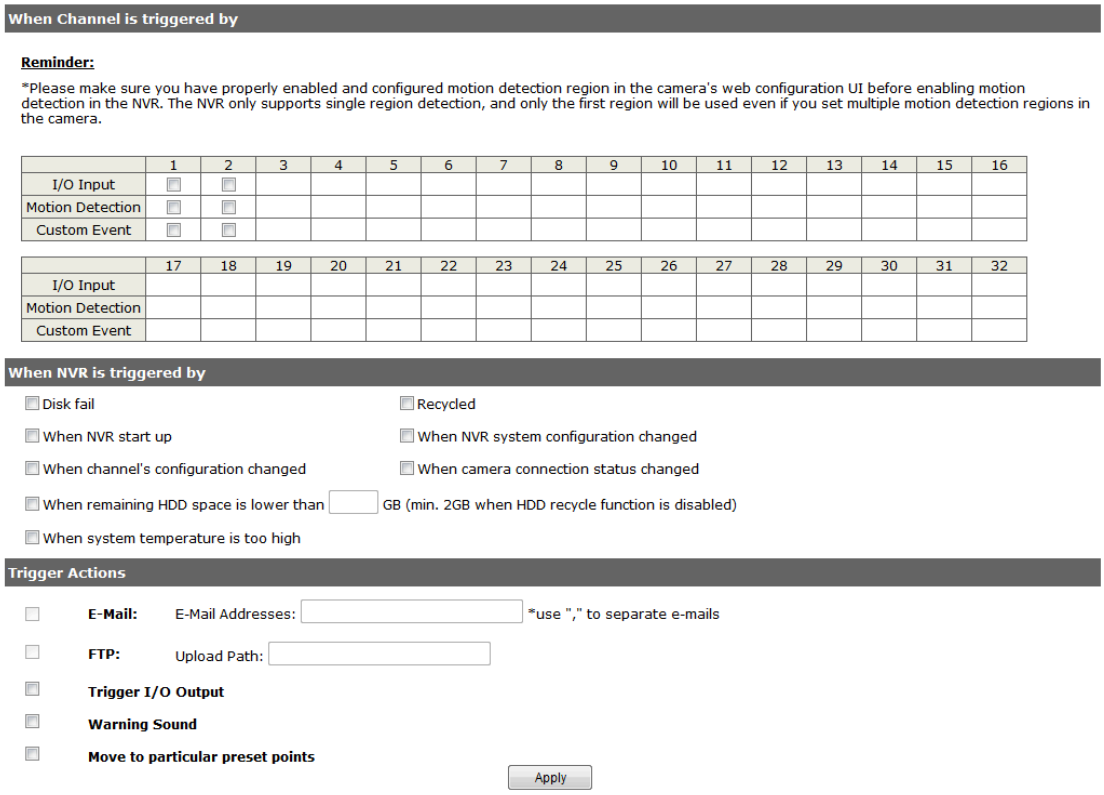
Configuring an SMTP server



1. Enter the hostname or the IP address of the SMTP server
2. Enter the port of the SMTP server
3. Specify the sender's name in the "Sender's name" field
4. Enter the sender's e-mail address
5. Check "Enable Authentication" and enter the username and password of the SMTP server if it requires authentication
6. Click "Apply" to save the configuration

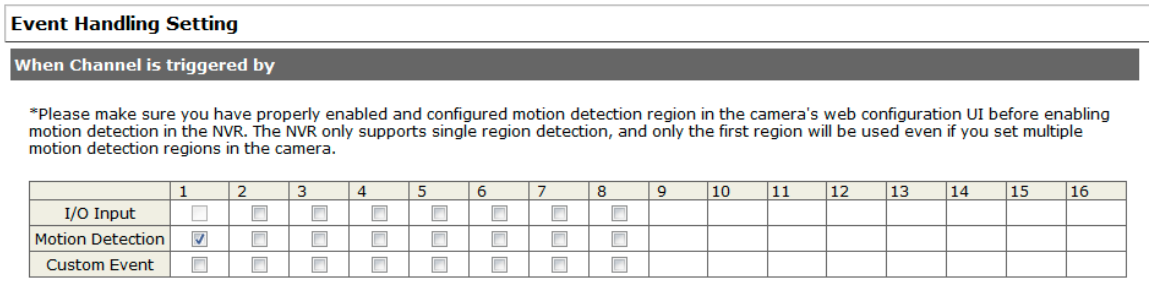
- The NVR supports SMTP servers that use base64 or MD5 authentication methods.
- 3rd party free E-mail services such as Gmail, Hotmail, or Yahoo mail are not supported.

Event Triggers


When Channel is triggered by
Reminder:
*Please make sure you have properly enabled and configured motion detection region in the camera's web configuration UI before enabling motion detection in the NVR. The NVR only supports single region detection, and only the first region will be used even if you set multiple motion detection regions in the camera.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
I/O Input
Motion Detection
Custom Event
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
I/O Input
Motion Detection
Custom Event
When NVR is triggered by
Disk fail
Recycled
When NVR start up
When NVR system configuration changed
When channel's configuration changed
When camera connection status changed
When remaining HDD space is lower than GB (min. 2GB when HDD recycle function is disabled)
When system temperature is too high
Trigger Actions
E-Mail: E-Mail Addresses: *use "," to separate e-mails
FTP: Upload Path:
Trigger I/O Output
Warning Sound
Move to particular preset points
Apply

We have finished defining how an event will be triggered and which servers will be receiving notifications in the previous two sections, now we can finish up the event configuration by setting:

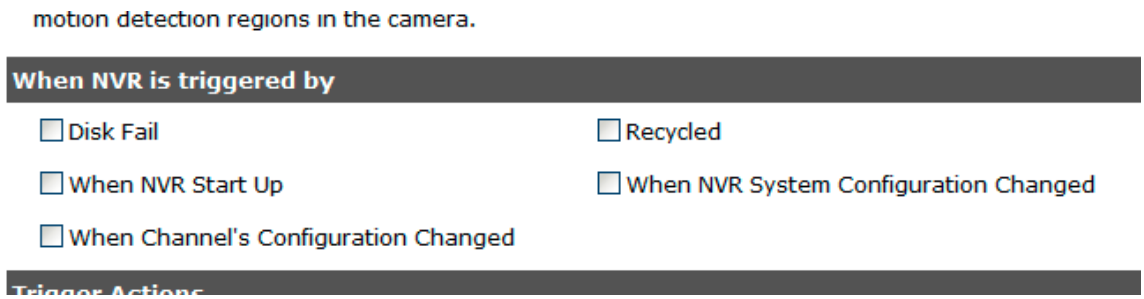
- Which channels will have event trigger function enabled
- What is considered to be an event
- Where the warnings will be sent to and how they will be sent


Event Handling Setting
When Channel is triggered by
*Please make sure you have properly enabled and configured motion detection region in the camera's web configuration UI before enabling motion detection in the NVR. The NVR only supports single region detection, and only the first region will be used even if you set multiple motion detection regions in the camera.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
I/O Input
Motion Detection
Custom Event

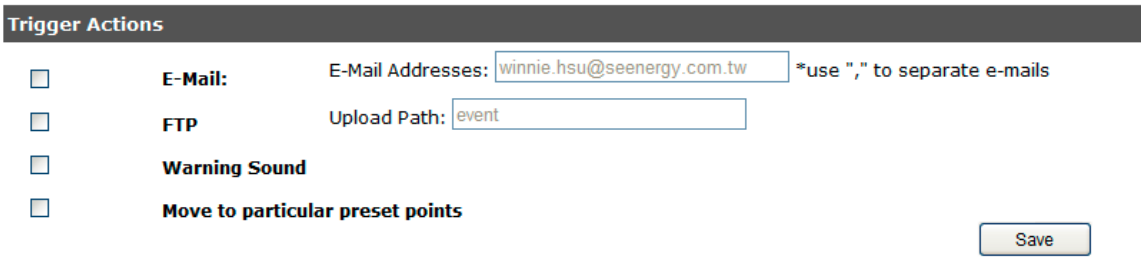
Use the checkbox to enable event trigger on the desired channels.

**Once motion detection is enabled in this page, please configure the motion area and enable motion detection in the corresponding channels (cameras) from* camera's *own web UI*. The NVR only detects the first motion area set in the camera. The NVR recognizes the first motion area by its ID number set in the camera.

** Enabling the "custom event" option allows the NVR to receive events from the CMS software and start recording; events such as the intelligent video detection in the CMS.*



Define which system events should trigger the recorder to send out notifications.



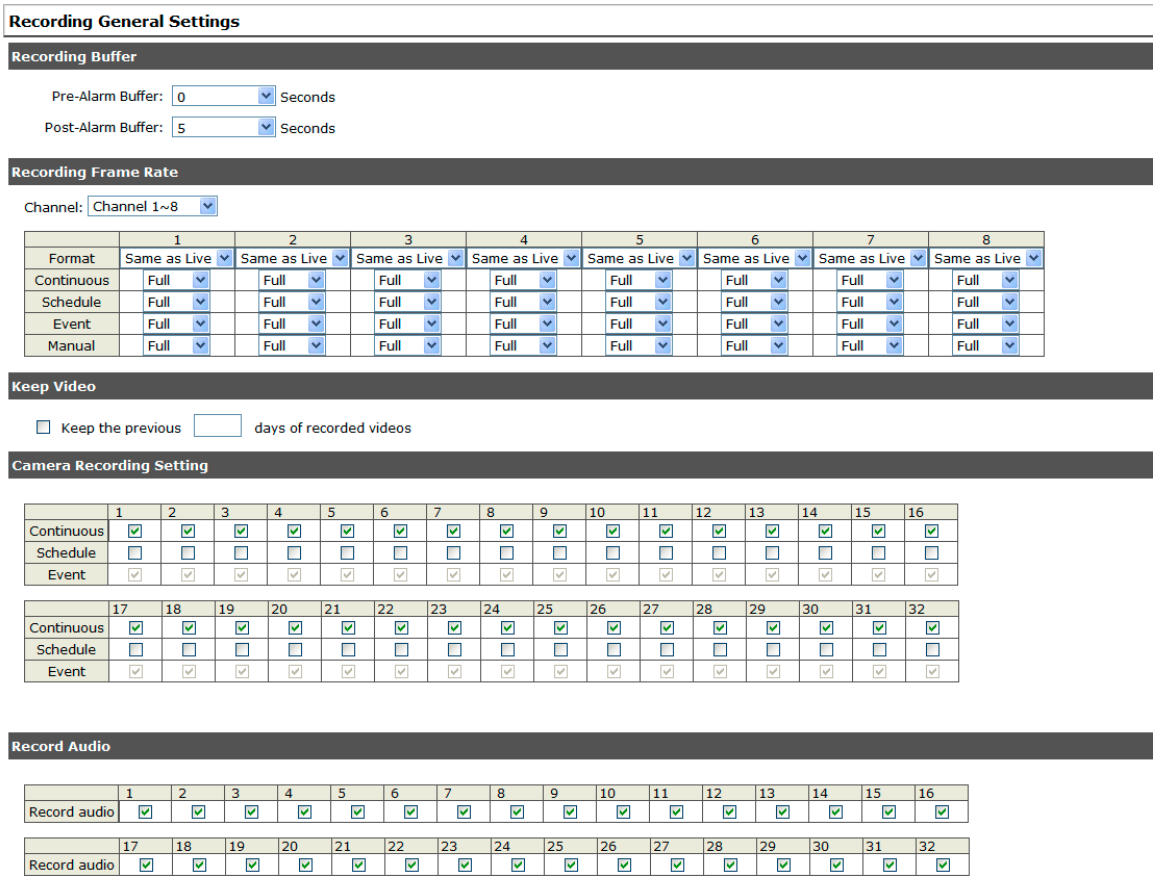
Define how the notifications will be sent and where they will be sent.

- *Event trigger may not work for cameras that are placed outside of your local network or on the Internet until the "UPnP Port Forwarding" is enabled in both the NVR and the router.*

NVR Setup -- Recording Configurations

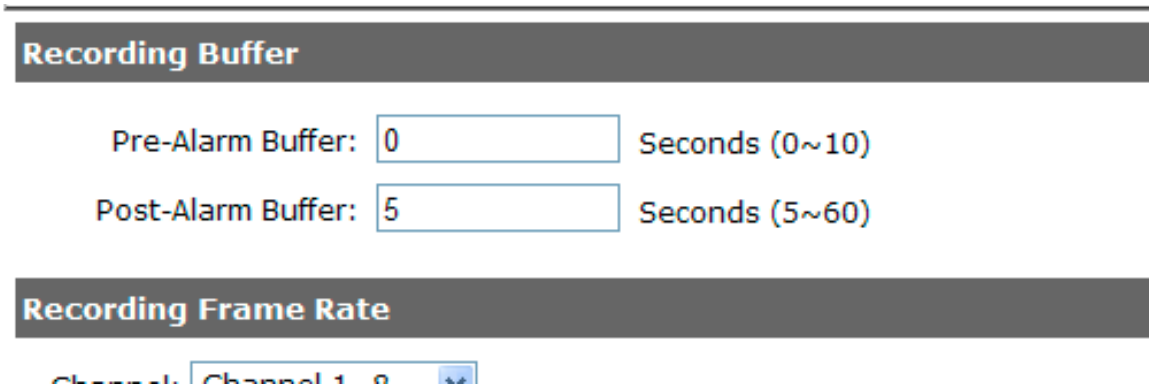
General Settings

The "recording configurations" gives users the overall control of how and when a recording is performed and the quality of different types of recordings performed on each channels. It can help the recorder to operate with sufficient system resource by performing recording only when it's necessary with adjustable recording frame rate.



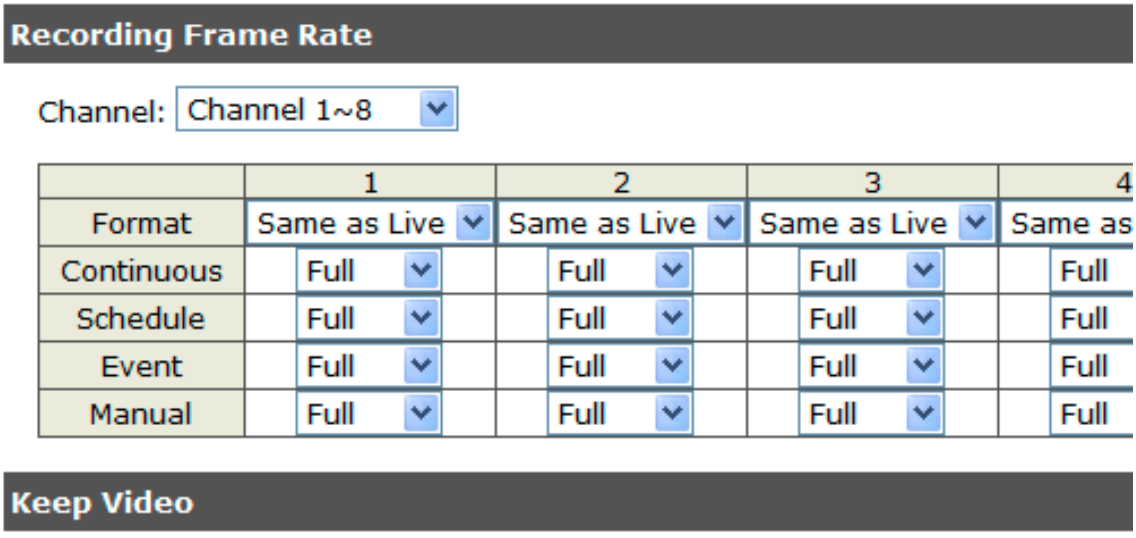
You can define the following in "General Settings":

- Pre-Alarm/Post-Alarm recording length
- Recording frame rate
- Define to always keep a number of days of previously recorded data
- Enable/disable different recording types on different cameras
- Enable/disable audio recording

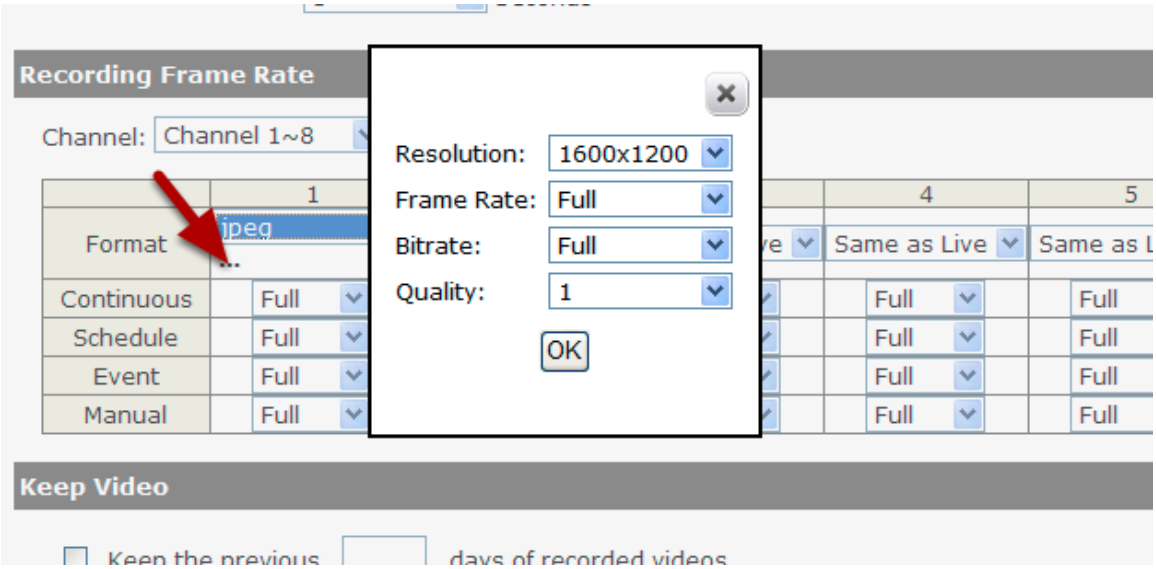


The "recording buffer" allows user to define "pre-alarm" and "post-alarm" time for event recordings. The "pre-alarm" time sets the NVR to record in advance when an event is triggered. The "post-alarm" time sets the NVR to continue recording for a period of time after an event trigger is finished.

** The "Pre-alarm" function only works when the "Continuous" recording is also activated.*



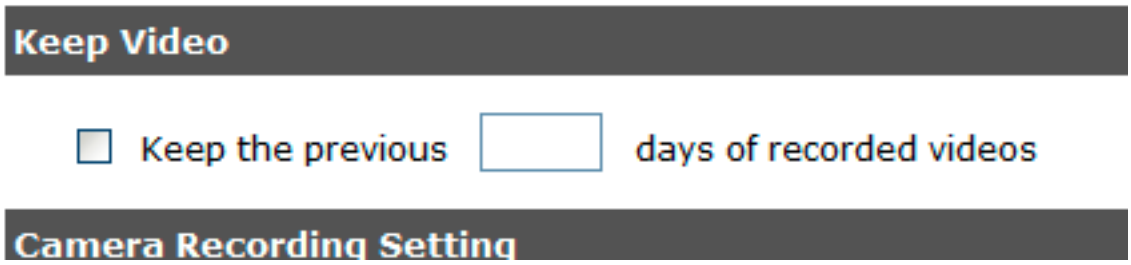
Recording frame rate allows you to set different frame rate for different types of recording instead of recording at one frame rate only. Use the drop-down menu and select one of the pre-defined frame rates for a particular recording type



You are able to use the same video format for recordings or you can choose other formats for different recording purposes if it's a multi-stream capable camera.

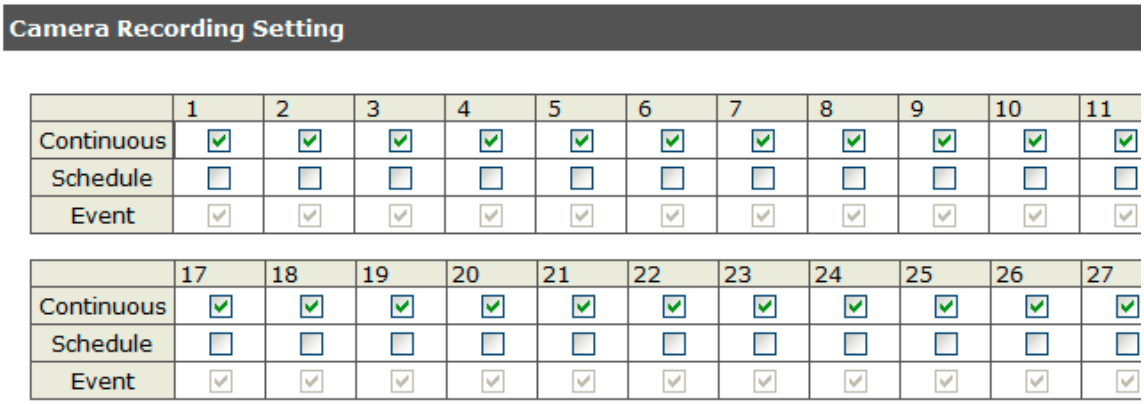
If you chose to use a different video format for recording, you are able to adjust its detail settings by clicking on the **"..."**.

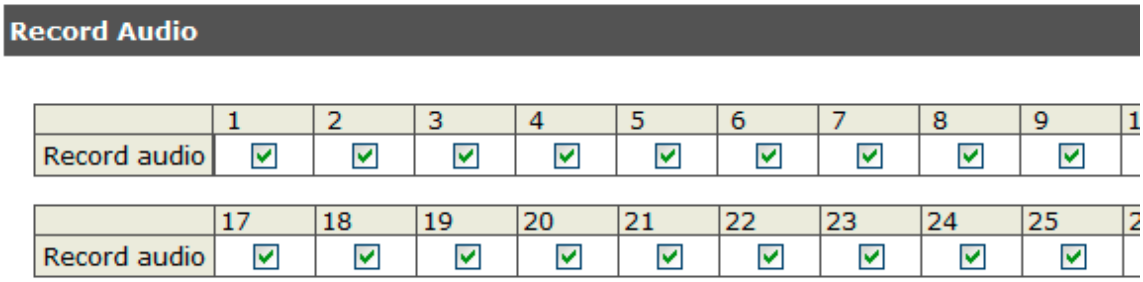
A new dialog will pop out for further detail configurations. Noticing the "Frame rate" in this dialog represents the live fps that will be set back to the camera for this particular video format. You can configure the recording fps for different types of recordings individually.



Users can also set to keep a previous number of days of recording data by enabling the option below. This is quite often used in application such as banking which certain countries requires to always keeping a minimum previous number of days of recording data.

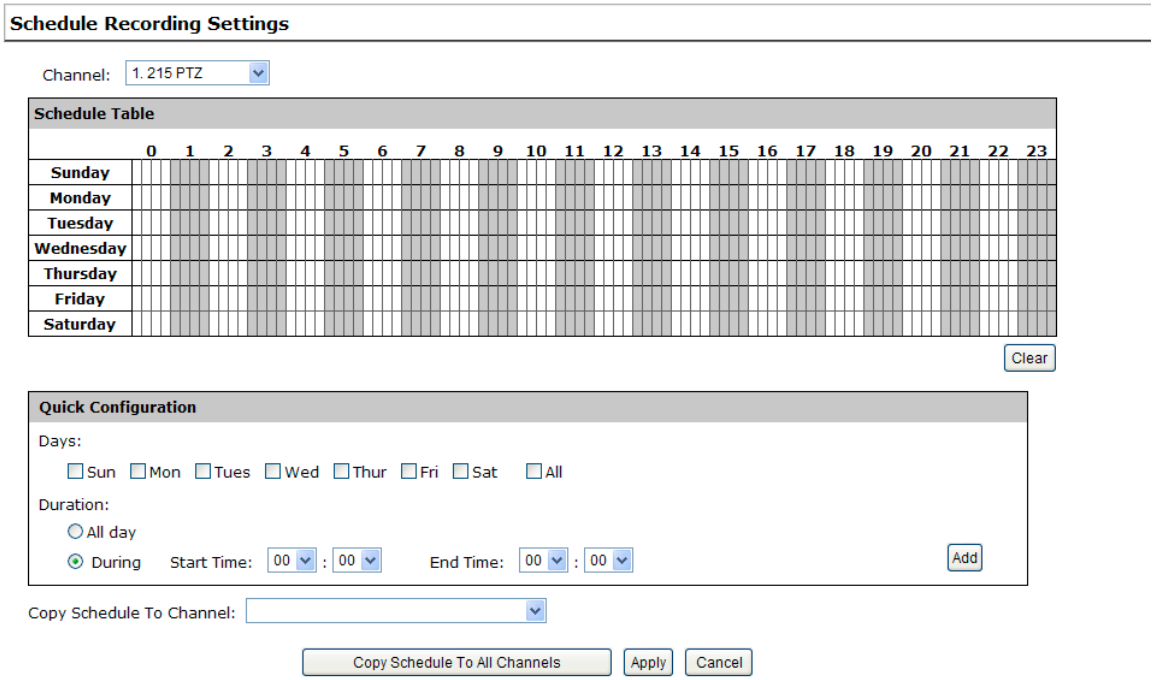
** If this option is enabled, once the hard drive is full, the recycle function will then start but it will ensure that the number of days of recording data defined here will stay in hard drive instead of wiping out 20GB of data at a time.*
** If the hard drive is not full, the NVR re-calculates twice a day (each at 2:30am and 2:30pm) to keep the defined number of days of recording data from these two particular point of time backward.*





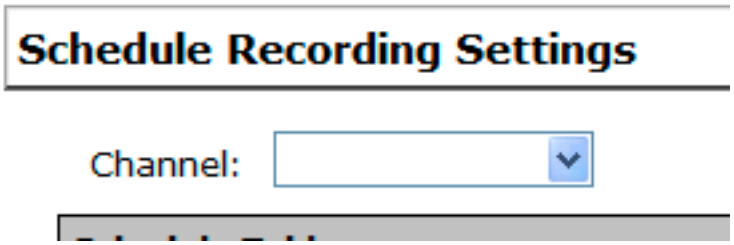
The section at the bottom of the page allows you to disable audio recording (record video only) of particular channels.

Schedule Recording

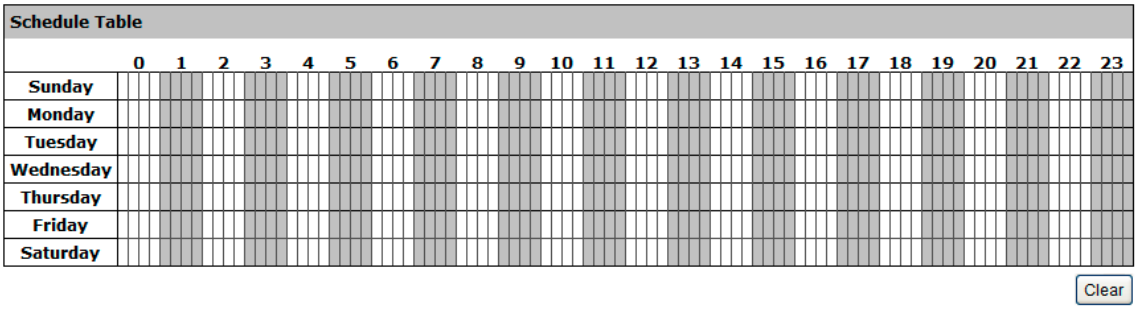


You can define the time range of the schedule recording for all channels in this page.

To configure a schedule recording

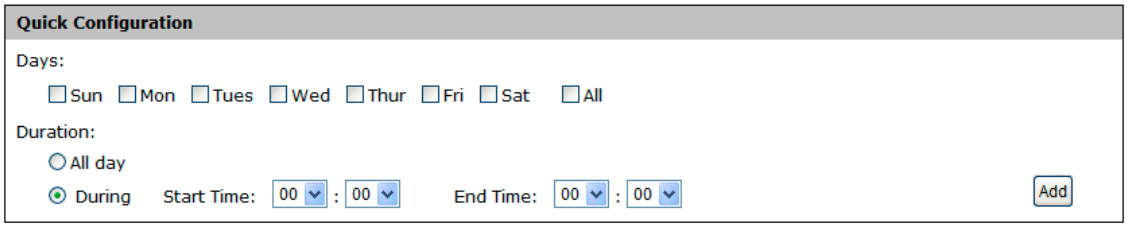


Use the "Channel" drop-down menu and select a camera first.



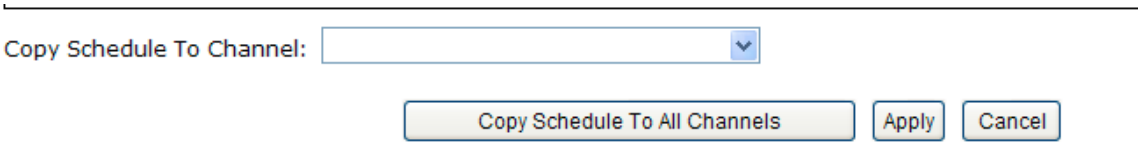
You can use the schedule table to set the time range. Click the cell boxes then move horizontally lets you set what hours to perform recording during a day. Click and move vertically lets you set what days to perform recording at a specific time.

** Each cell box represents 15 minutes of time. Click one or more boxes to omit consecutive recording.*

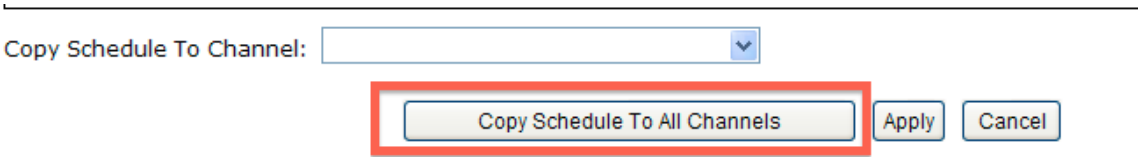


You can also use the "Quick Configuration" to define recording time range instead of clicking cell boxes one by one on the timetable. Simply check what days you would like to perform recording and

specify the recording duration by either choosing "All Day" or enter a start and end time for specific recording duration.



Select the "Copy Schedule to Channel:" option if you would like to set the same recording schedule to another camera.

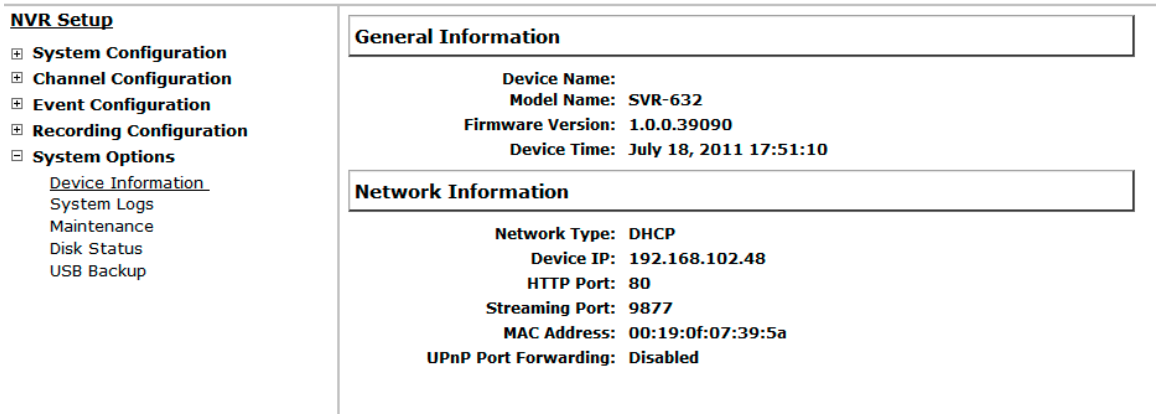


Alternatively, you can click on "Copy Schedule to All Channels" and apply schedule setting to all channels at once.

NVR Setup -- System Options

Device Information

System Options gives users a glance of the overall system status and allows users to perform maintenance tasks such as upgrading firmware, restore/backup device settings or reboot device ....etc.



The "Device Information" provides the general information of the device such as firmware version and system time. It also provides information of the current network settings and status.

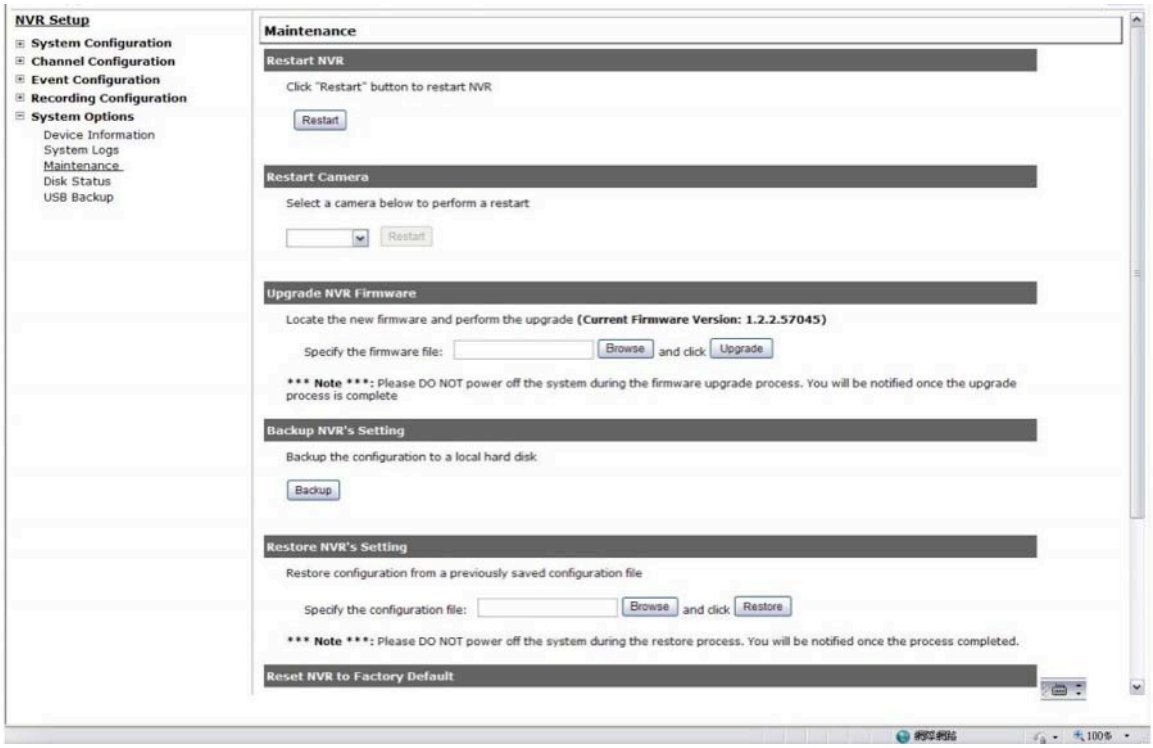
Logs and Reports

System Logs

ID	Time	Type	Sub-type	CH	AP	IP	User
1	July 19, 2011 10:15:07	User	User login		Web		admin
2	July 19, 2011 09:47:20	User	User login		Web		admin
3	July 19, 2011 08:56:19	Recording	Stop recycling HDD space				
4	July 19, 2011 08:55:23	Recording	Start recycling HDD space				
5	July 18, 2011 20:21:40	User	User logout		TestClient	192.168.102.21	admin
6	July 18, 2011 20:20:38	User	User logout		TestClient	192.168.101.178	admin
7	July 18, 2011 19:54:46	User	User login		Web		admin
8	July 18, 2011 19:50:35	User	User login		Web		admin
9	July 18, 2011 19:45:14	Linux	Format hard disk				
10	July 18, 2011 19:44:55	Linux	Format hard disk				
11	July 18, 2011 19:44:33	Linux	Format hard disk				
12	July 18, 2011 19:44:15	Linux	Format hard disk				
13	July 18, 2011 19:43:59	Linux	Format hard disk				
14	July 18, 2011 19:43:38	Linux	Format hard disk				
15	July 18, 2011 19:41:06	Channel	Camera connected	31			
16	July 18, 2011 19:41:06	Channel	Camera connected	21			
17	July 18, 2011 19:41:05	Channel	Camera connected	18			
18	July 18, 2011 19:41:05	Channel	Camera connected	19			
19	July 18, 2011 19:41:05	Channel	Camera connected	17			
20	July 18, 2011 19:41:05	Channel	Camera connected	16			
21	July 18, 2011 19:41:05	Channel	Camera connected	15			
22	July 18, 2011 19:41:05	Channel	Camera connected	13			
23	July 18, 2011 19:41:05	Channel	Camera connected	14			
24	July 18, 2011 19:41:05	Channel	Camera connected	12			

"Logs and Reports" keeps a record of what's been happening to the device and provides basic information for troubleshooting.

Maintenance


NVR Setup
System Configuration
Channel Configuration
Event Configuration
Recording Configuration
System Options
Device Information
System Logs
Maintenance
Disk Status
USB Backup
Maintenance
Restart NVR
Click "Restart" button to restart NVR
Restart
Restart Camera
Select a camera below to perform a restart
Restart
Upgrade NVR Firmware
Locate the new firmware and perform the upgrade (Current Firmware Version: 1.2.2.57045)
Specify the firmware file:
Browse
and click
Upgrade
*** Note ***: Please DO NOT power off the system during the firmware upgrade process. You will be notified once the upgrade process is complete
Backup NVR's Setting
Backup the configuration to a local hard disk
Backup
Restore NVR's Setting
Restore configuration from a previously saved configuration file
Specify the configuration file:
Browse
and click
Restore
*** Note ***: Please DO NOT power off the system during the restore process. You will be notified once the process completed.
Reset NVR to Factory Default

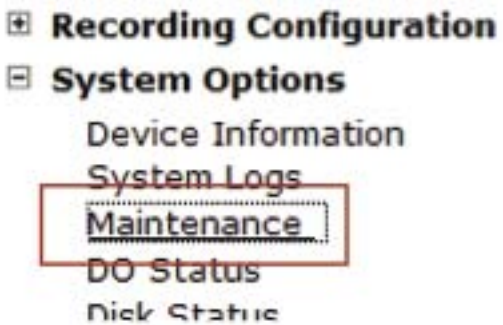
"Maintenance" provides functions for users to:

- Reboot the NVR when necessary
- Reboot cameras directly from the NVR
- Perform Firmware Upgrade
- Backup the NVR's settings to a local hard drive
- Restore the NVR's settings from a previously saved configuration file
- Reset the NVR's settings to their factory default values

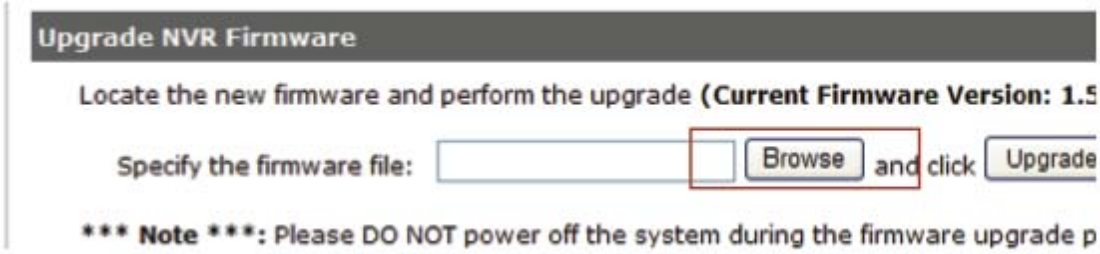
Firmware Upgrade

The firmware can be upgraded through web UI or USB. Before upgrading firmware, please backup configuration in advance.
***** the firmware file comes with a ".tar.gz" file extension, please use the file as is, DO NOT unzip it. It's normal that you may only see ".tar" as the file extension in Windows as the OS hide the known file extension by default.***

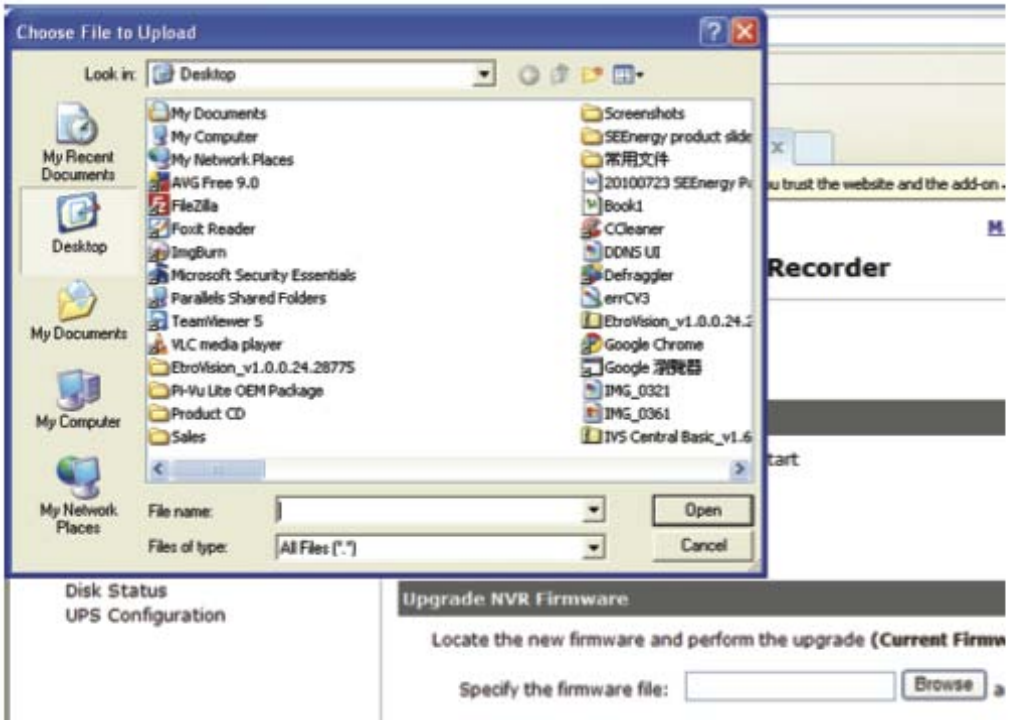
Through the web interface



Login into NVR's web management UI, and go to "NVR Setup" >> "System Options"->"Maintenance"

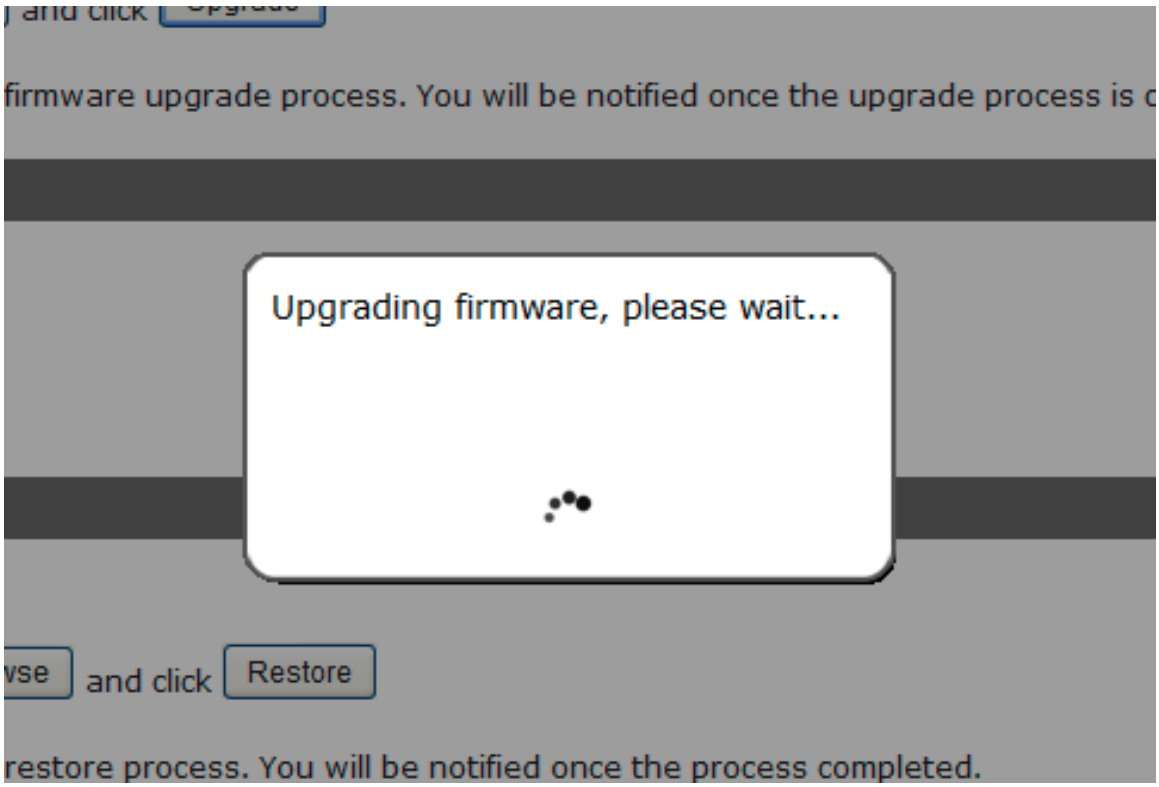

Upgrade NVR Firmware
Locate the new firmware and perform the upgrade (Current Firmware Version: 1.5
Specify the firmware file:
Browse
and click
Upgrade
*** Note ***: Please DO NOT power off the system during the firmware upgrade p

On "Upgrade NVR's Firmware" section, click "Browse" and select new firmware file



A new dialog should display and let you choose the location of the firmware file.

When done, click "Upgrade".


firmware upgrade process. You will be notified once the upgrade process is
Upgrading firmware, please wait...
and click
Restore
restore process. You will be notified once the process completed.

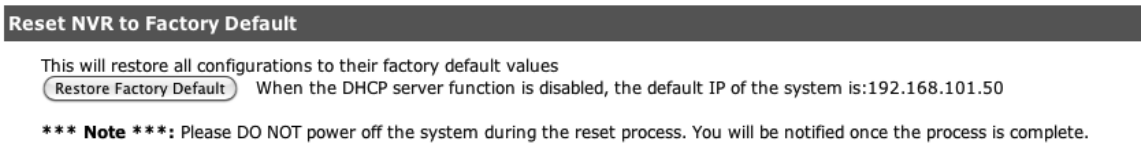
Follow the on screen instruction and wait for the process to finish (After upgrade, the system will reboot automatically, it's part of the process)

Upgrade through USB thumb drive

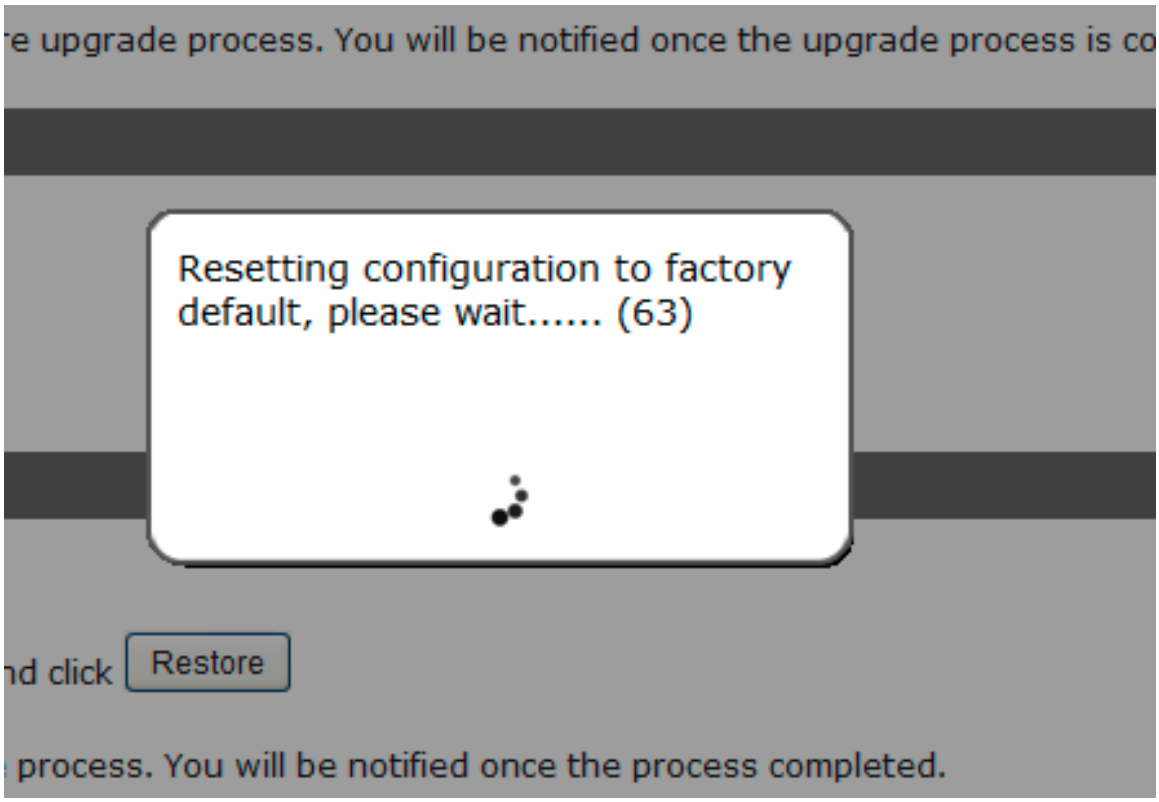
1. Prepare a USB flash disk and format with FAT or FAT32 format
2. Place the firmware in the USB flash disk and make sure it's placed at the top-level directory. Please do not place the file in a folder. **(Make sure to change the firmware file name to "firmware" and leave its file extension ".tar.gz" as is before placing the file to the USB disk)**
3. Plug USB flash disk into USB port on the NVR
4. The System LED on the NVR will start to flash in amber. This indicates firmware upgrade is in process
5. *** Warning *** Please wait until upgrade process finished, interrupt the upgrade process may cause system not work anymore
6. Wait until System LED remains solid in amber. This indicates firmware upgrade is finished
7. Power off the NVR and remove the USB disk the power the unit back on again

8. Restore configuration file back if needed

Reset the NVR to Factory Default


Reset NVR to Factory Default
This will restore all configurations to their factory default values
Restore Factory Default
When the DHCP server function is disabled, the default IP of the system is:192.168.101.50
*** Note ***: Please DO NOT power off the system during the reset process. You will be notified once the process is complete.

To reset the recorder back to its factory default, click "Restore Factory Default" button and begin the process.


e upgrade process. You will be notified once the upgrade process is co
Resetting configuration to factory default, please wait..... (63)
nd click
Restore
process. You will be notified once the process completed.

The process should be displayed and you should be prompted back to the "Live View" page after it is complete.

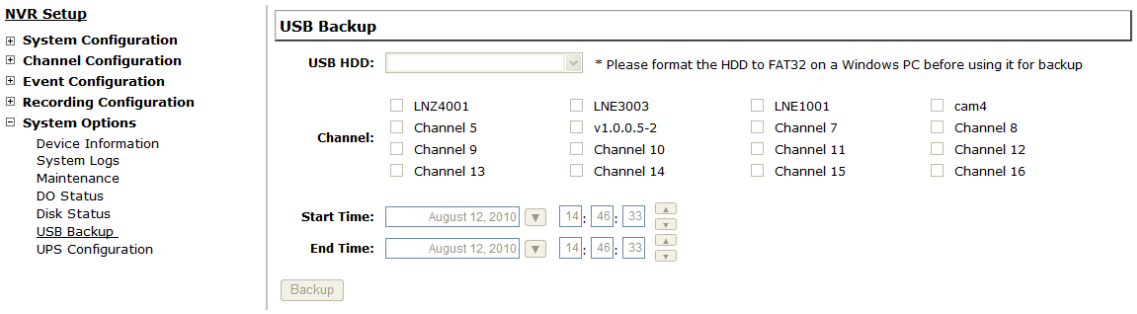
Disk Status

Disk Status

Disk ID	Status	Capacity	Remaining Disk Space	Remaining	Online Time	Recording Period	Est. Remaining Time
Internal_1	Normal	469GB	441GB	93%	Dec 29 2011 20:23:24	Dec 29 2011 17:18:15 - Dec 30 2011 10:08:18	11 day(s) 1 hour(s)

"Disk Status" gives you more detailed information of the hard drive that is currently installed in the NVR.

USB Backup



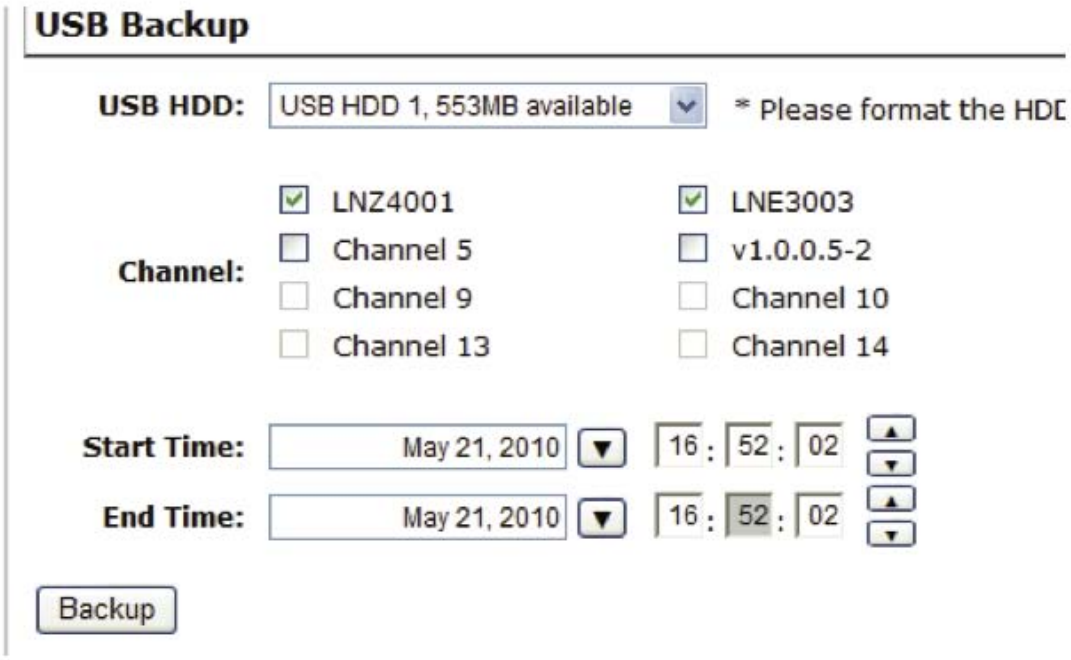
It's a function that allows users to backup the recording data in its database file format (not AVI) to the externally connected USB hard disk.

Disk Status

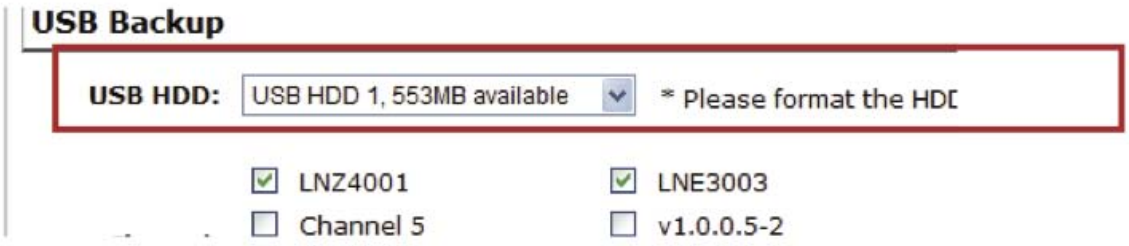
Disk ID	Status	Capacity	Remaining Disk Space	Remaining	Online Time	Recording Period	Est. Remaining Time
HDD 1	Online	222GB	216GB	97%	Aug 12 2010 11:21:12	May 21 2010 16:52:02 -	2980 day(s) 21 hour (s)
USB HDD 1	Online	1935MB	553MB	28%		--	--

You can check the "Disk Status" page under "System Options" to see if the USB disk has been detected by the NVR. If it's available, it will also be in the USB HDD drop-down menu in the USB backup page.

** It needs a USB disk containing free space larger than 100MB.*

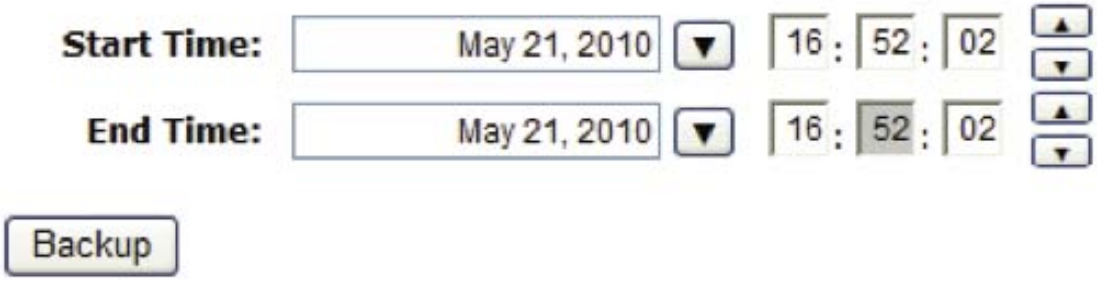


Once it's detected, go back to the "USB Backup" page and it should be available for further configuration



The USB hard disk(s) will be listed in the drop-down menu displaying the remaining disk space. Make your selection from the drop-down menu if you have more than one disks connected to the NVR.

Next, select channels which you would like to backup the recording data from. Maximum 4 channels can be selected at once



Configure the start and end time of the recording data you would like to backup and click the "Backup" button to begin.

Things to pay attention to the USB Backup function

Limitation:

- It does not support USB Hub extend the number of HDD connected to the NVR
- Only one backup process can be performed at a time
- Maximum 4 channels can be selected for backup
- Only FAT32 USB hard disk is supported for backup
- The USB hard disk needs to have more than 100MB remaining space
- If multiple partitions are presented in one disk, only the first partition will be detected and used for backup

Process:

- Progress will be displayed on the UI
- If the backup process gets interrupted, which the process stops at a point of time that is before the "END Time" user defined, such time will be displayed on the UI
- A folder will be automatically created in the USB hard disk with a name format like 0028687831_20100610151515_2010060511 0010_20100606110010 (MAC_backupbuttonclicktime_starttime_ endtime)

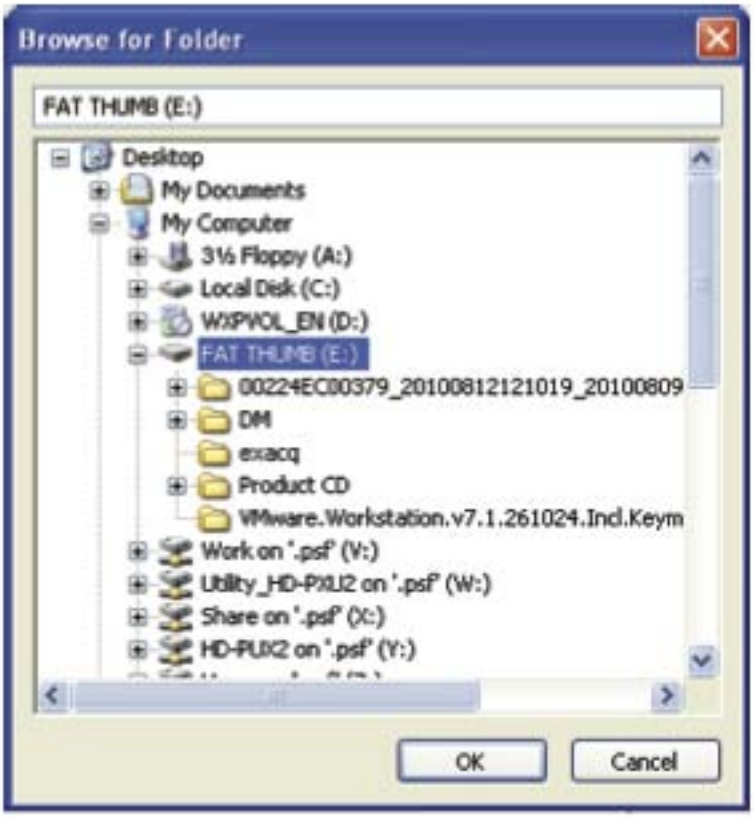
Note:

- Please plug in the USB HDD only after the NVR is fully started, or the HDDs will be incorrectly mounted.

Play the backup file with the NVR Media Player

The backup files can be played with the NVR media player. To do, open the player and select "Open" >> "Media Database"

Click "Browse..." to select the file from the USB disk.



A new dialog should be prompted for you to select the file location.

When done, click "Check" to validate the file.

Once the file has been successfully verified, you should be prompted with the message shown below.

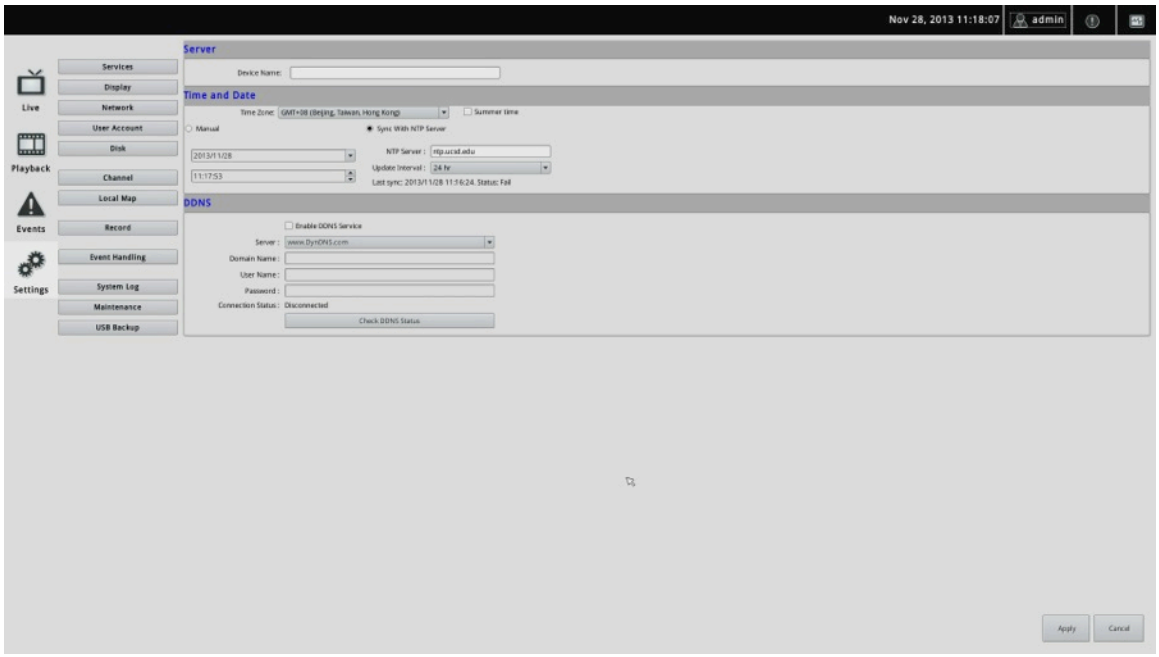
Select the time zone according to your current location.

Finally, click "OK" to begin playing. The player should now play the backed up file.

NVR Configuration (Local Interface)

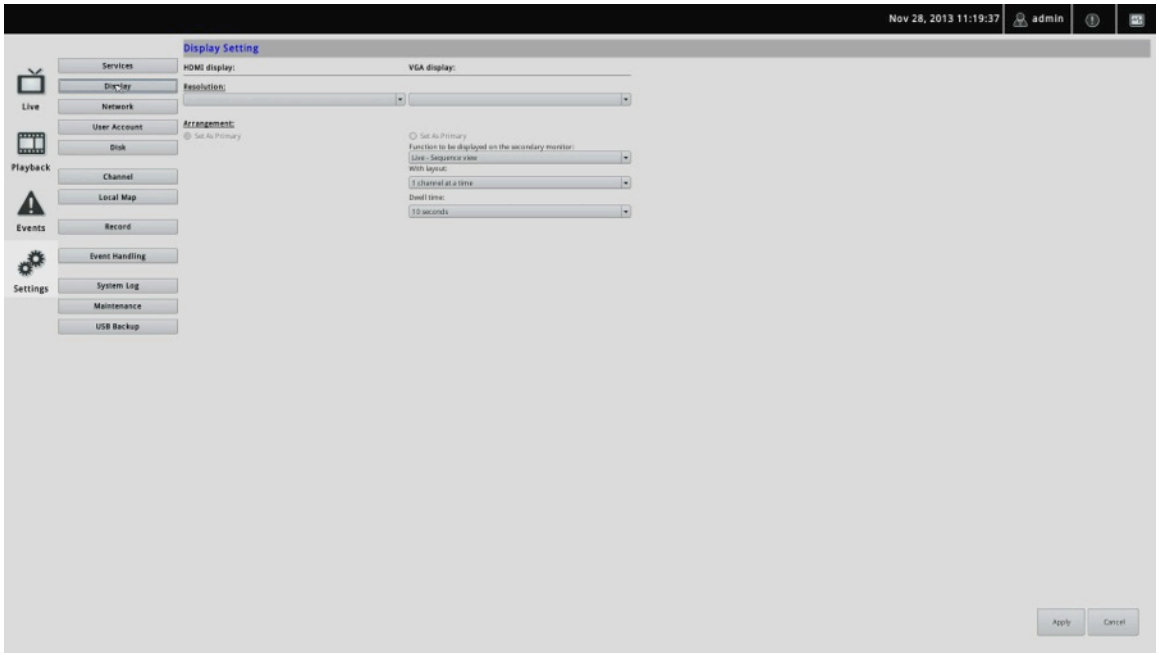
System Configuration

Service



You will the see the "Service" configuration page first when visiting the Configuration page. You are able to set a unique device name, set system time and configure DDNS in this page.

Display



The "Display" configuration page allows you to choose the most optimized display resolution for the monitor that's used with NVR, as there will be circumstances that the incorrect resolution may be used when the system first boots up.

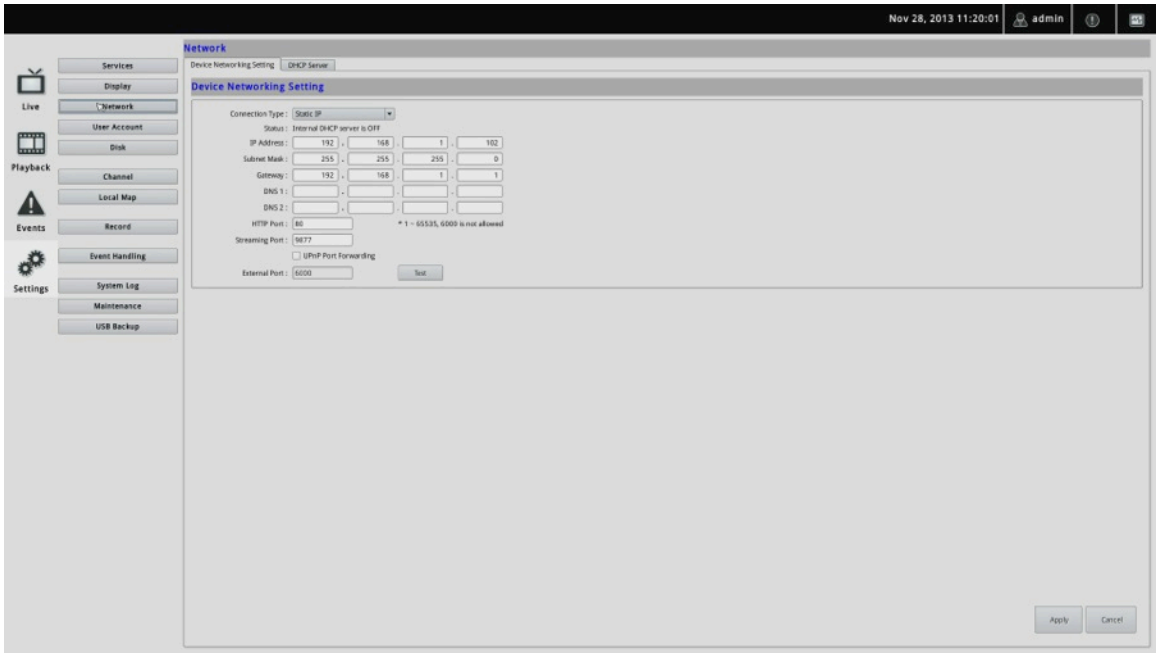
The NVR comes with two video outputs (HDMI: Primary as default, VGA: Secondary as default). You can set which to be used as primary and secondary in this page other than setting the resolution.

You are also able to set the function to be displayed on the secondary monitor in this page.

Currently you can configure the secondary monitor to display live videos with selected channels in desired layout, or live video in automatic sequence view.

NOTE: The NVR will reboot automatically upon change of resolution/or monitor for the new setting to take effect or be detected.

Network

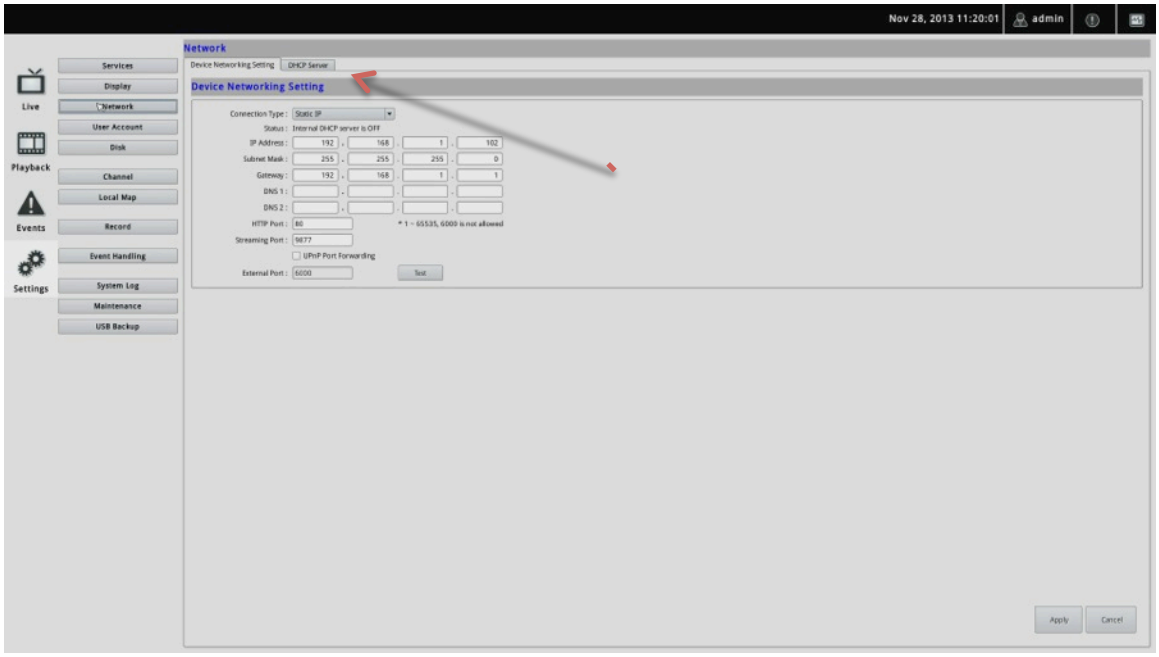


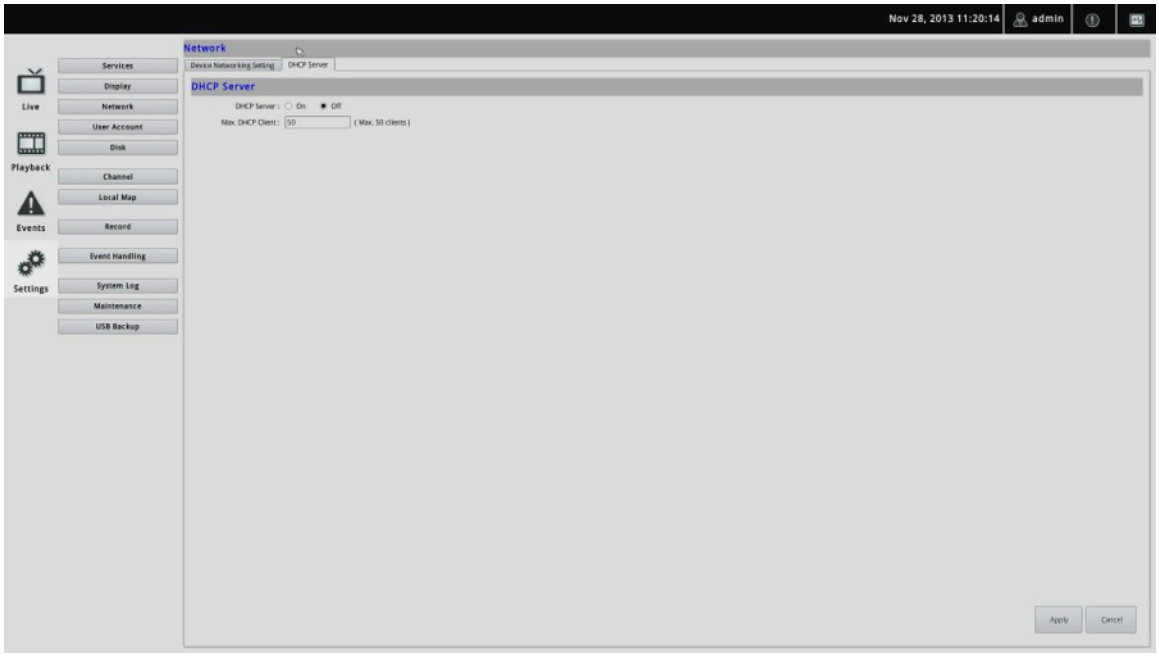
You need to adjust settings in this page for the device to work properly in your network. It is critical that settings here are configured correctly based on your network configurations so that the recorder can be administered through the local area network and cameras can be connected from it.

By default, the recorder is set to "Auto Mode" which if there's a DHCP server in the same local network, the NVR can obtain IP address from the DHCP server. And you can locate the NVR by using the NVR search utility.

If there's no DHCP server in the network, and the NVR is set to use "Auto Mode", it will use its own default static IP **192.168.101.50**.

* *The recorder can detect the presence of a DHCP server upon startup. It sets itself to use static IP address if there is no DHCP server currently presented in the network. Its DHCP server function is also turned on at the same time to assign IP addresses to cameras that are later connected to the network* or you can manually turn off the DHCP server function at the bottom of this page.



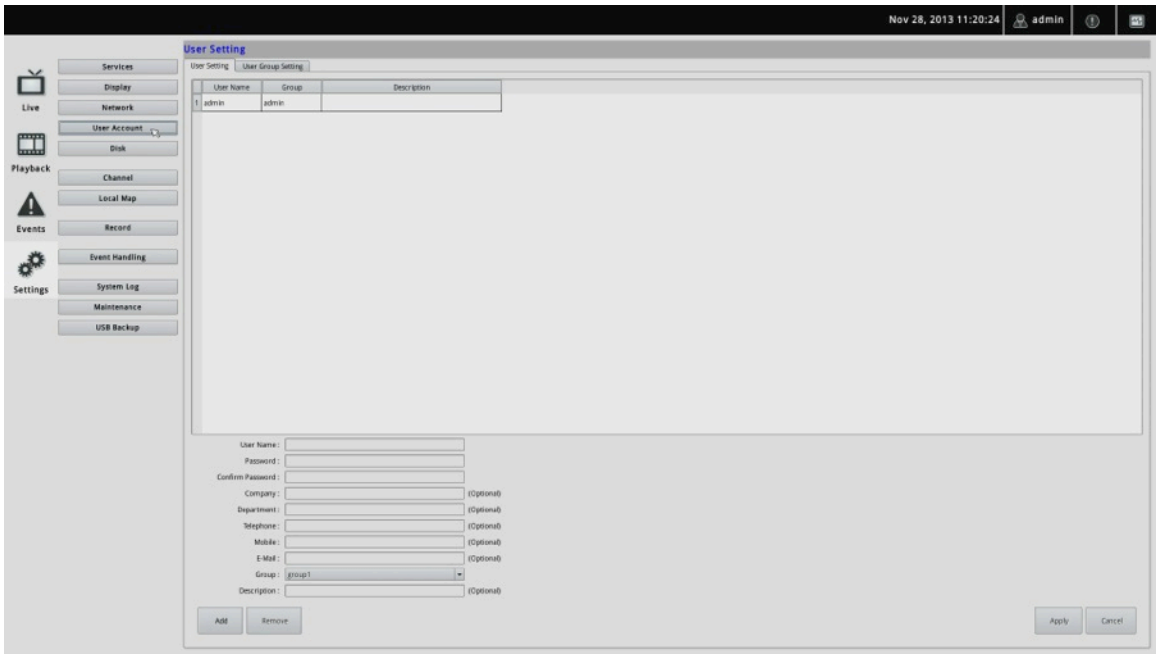


The built-in DHCP Server function is **NOT** always configurable and is greatly dependent to the connection type that is used:

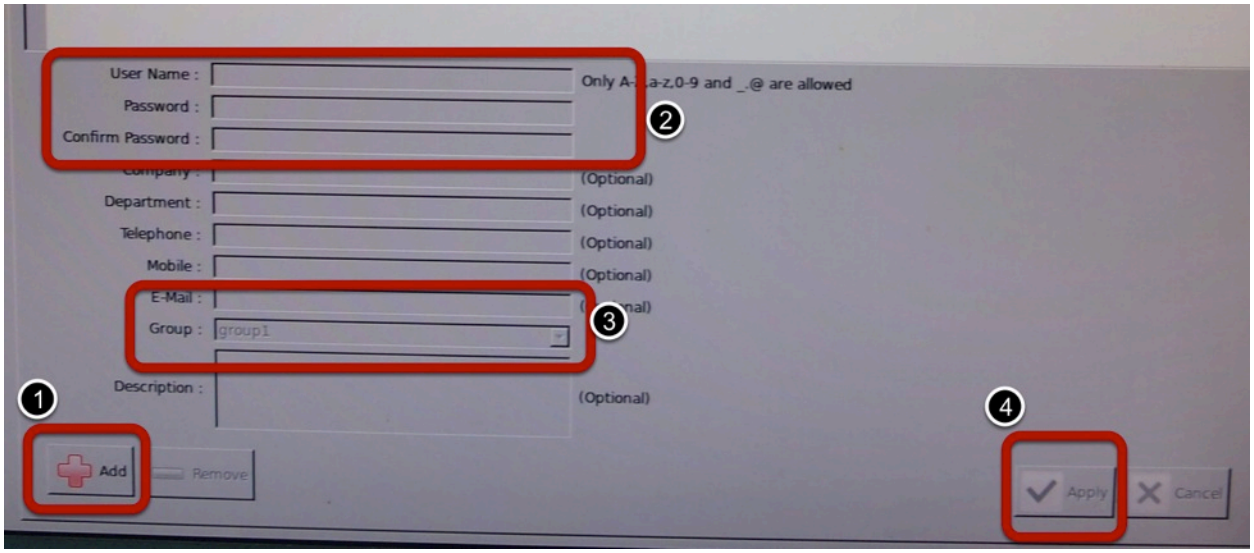
1. If the connection type is "Auto Mode", the DHCP server function is NOT configurable. It will be ON if the NVR doesn't obtain an IP from a DHCP server in the local network and uses its own default static IP 192.168.101.50

2. If the connection type is "Auto Mode", the DHCP server function is NOT configurable. It will be OFF if the NVR obtains an IP from a DHCP server in the local network.
3. If the connection type is "DHCP Client", the DHCP server function is NOT configurable. It will be OFF if the NVR obtains an IP from a DHCP server in the local network.
4. If the connection type is "DHCP Client", the DHCP server function is NOT configurable. It will be ON if the NVR doesn't obtain an IP from a DHCP server in the local network and uses its own default static IP 192.168.101.50
5. If the connection type if "Static IP", the DHCP server function is configurable and can be turn on/off manually.

User Account -- User setting

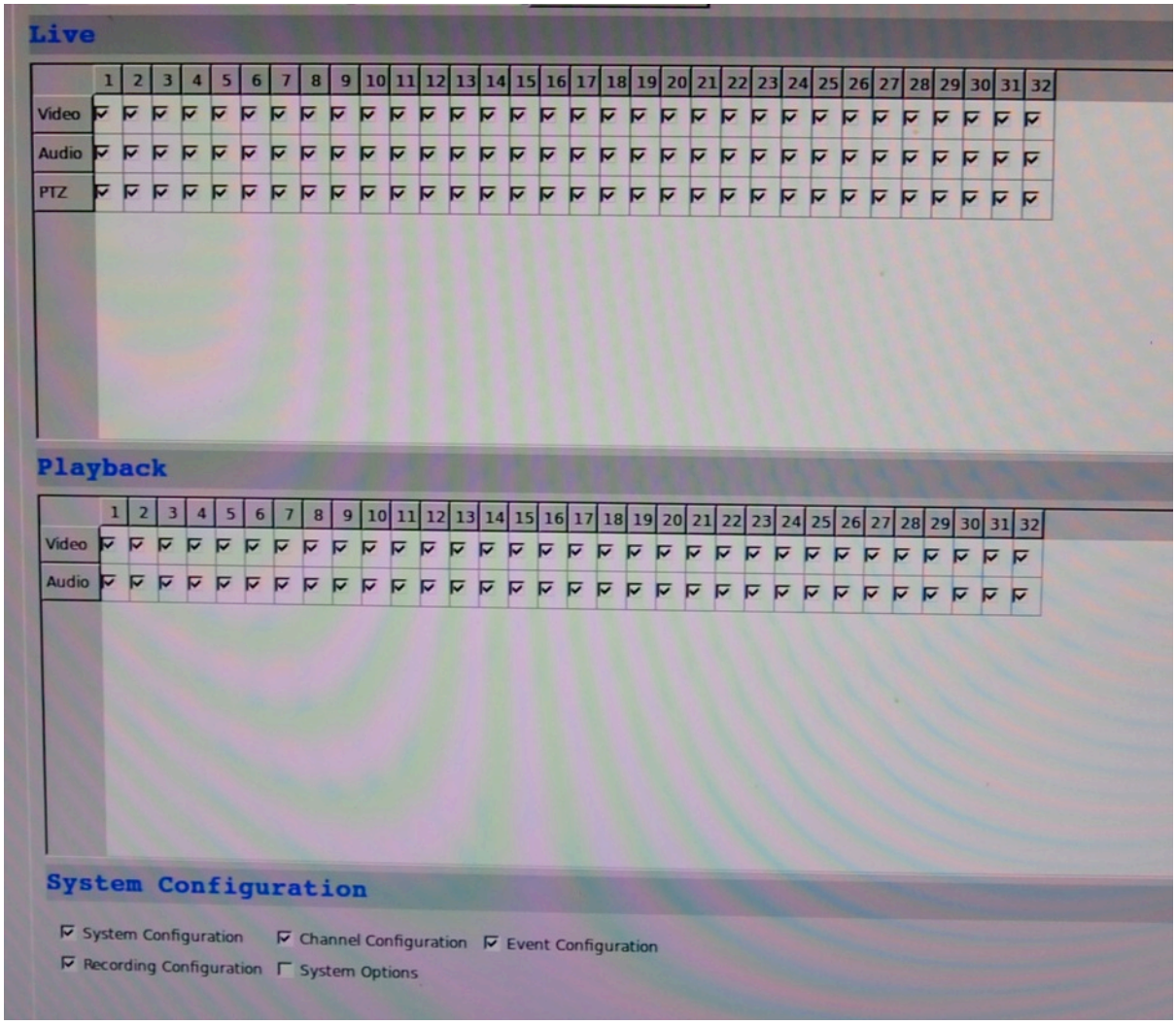


Multiple users can access the recorder simultaneously. You can add, remove, and edit users by using options provided in this page to keep user information organized. Each recorder comes with a built-in "admin" account with password "admin". It's highly recommended to change the password upon your initial login.



• Click "Add" to add a new user.
• Enter a username and password. All other fields are optional for your own reference.
• Select a group from the "Group" drop-down menu to assign the new user to a particular group. Enter a short description for the account if you wish
• Click "Apply" to finish configuration

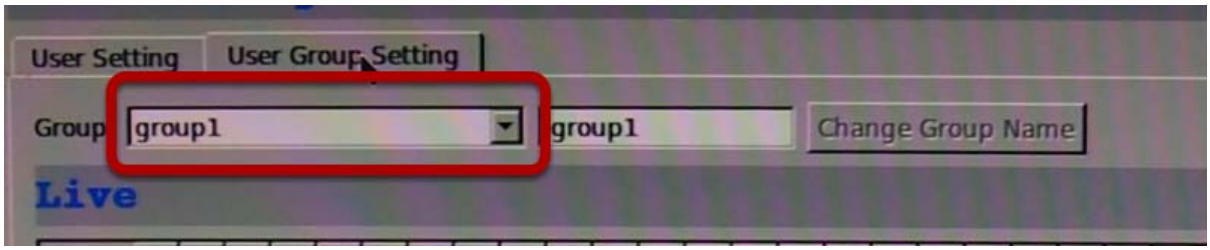
User Account -- User group setting


Live
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
Video
Audio
PTZ
Playback
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
Video
Audio
System Configuration
System Configuration
Channel Configuration
Event Configuration
Recording Configuration
System Options

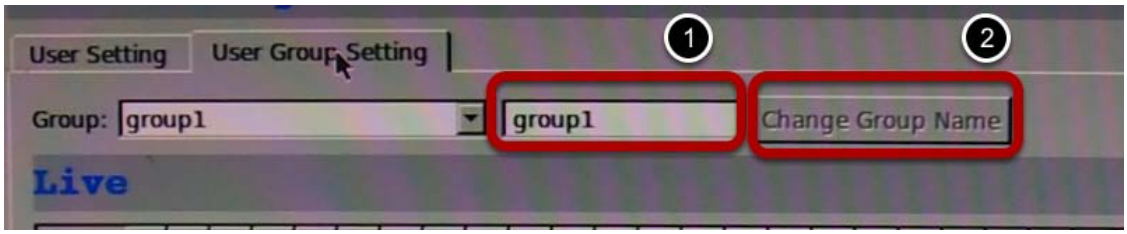
Group Privilege is where you can create multiple customized access policies for situations if you need the recorder to be accessed by users other than the administrator. You can do so by creating a group, and then remove access privileges for certain configuration pages or cameras. Users that are created and assigned to this group will have limited access instead of full administration rights.

The recorder comes with seven built-in groups and five built-in privilege profiles, except the "admin" and the "guest" accounts; the other five groups are fully customizable or you can simply assign a group with one of the default privilege profiles. You can, however, assign more than one users to the "admin" account if you wish to do so. The guest account comes with a "view-only" privilege in the "Live View" page, and users in this group do not have the power to make

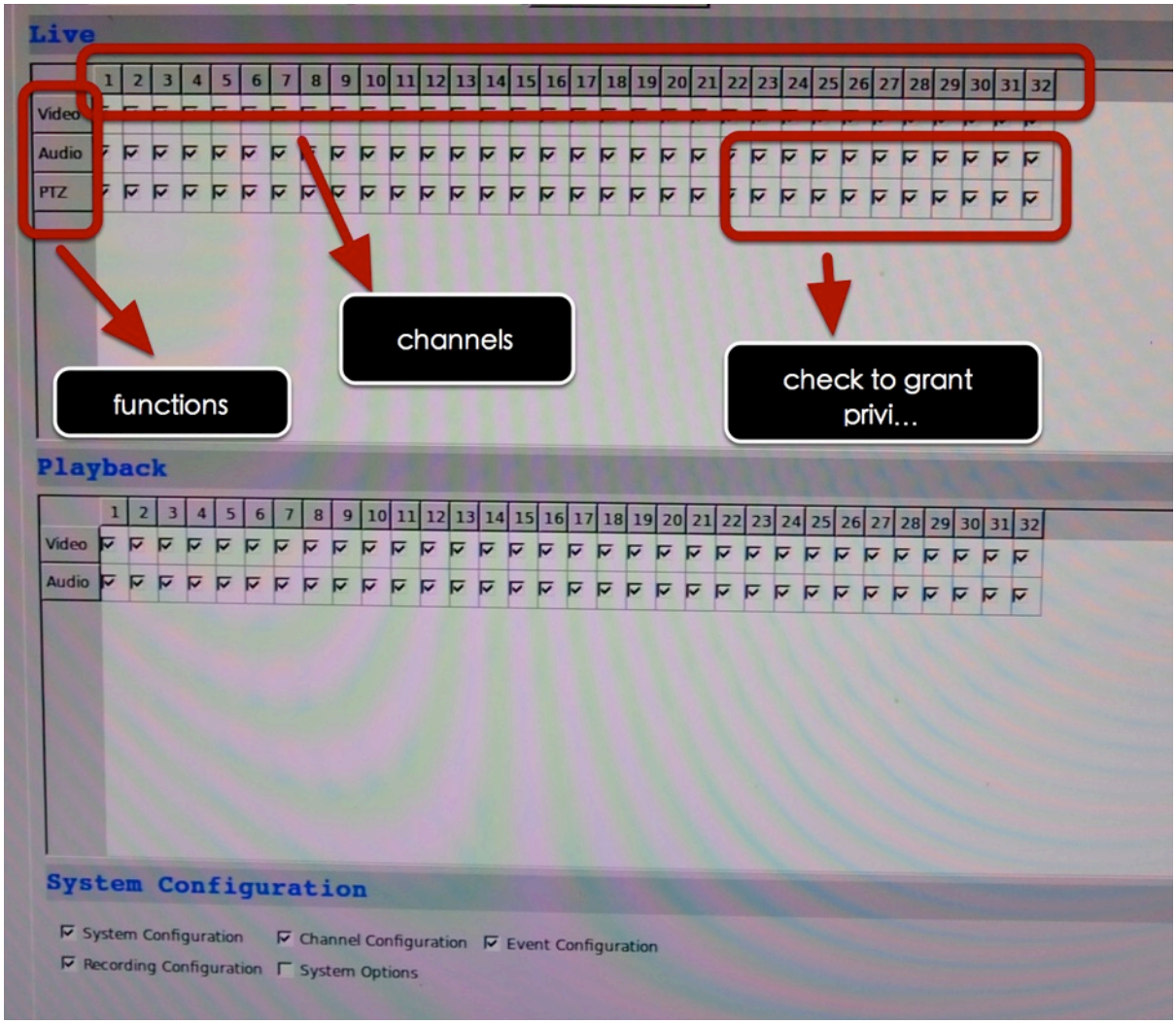
any changes in the "Live View" page or have access to pages other than the "Live View" page.



To create a group, select a group from the "Group" drop-down menu.

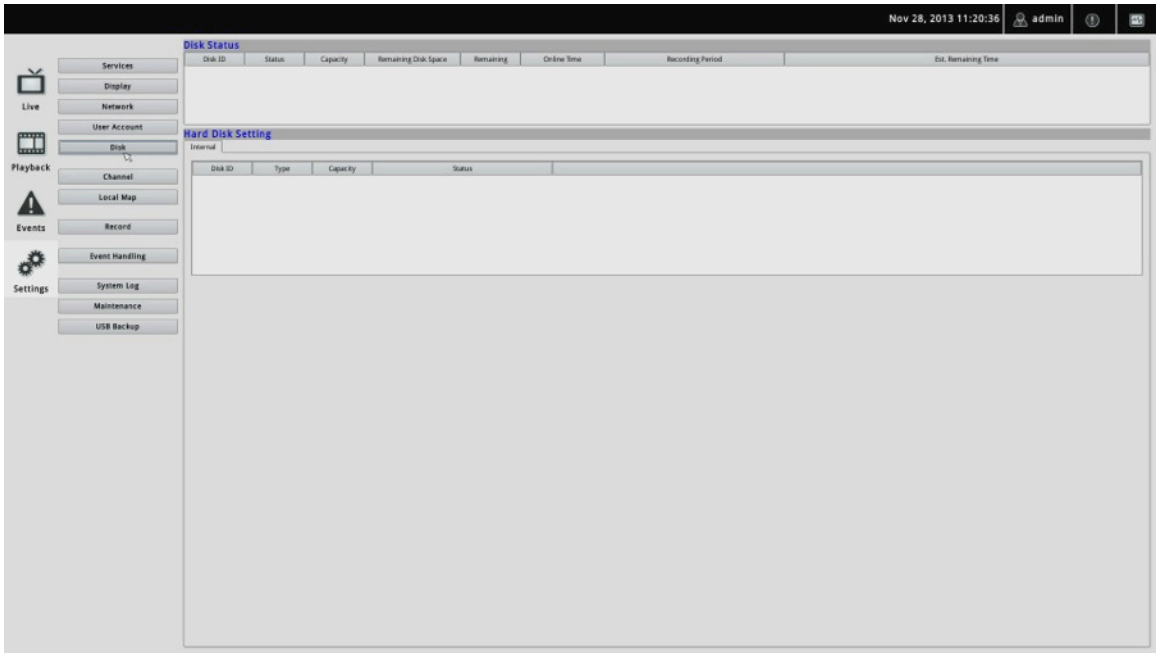


You can change the group name by typing in a new group name and click the "Change Group Name" button to finish.


Live
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
Video
Audio
PTZ
functions
channels
check to grant privi...
Playback
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
Video
Audio
System Configuration
System Configuration
Channel Configuration
Event Configuration
Recording Configuration
System Options

Use the check boxes to allow or deny access to certain functions/channels. You can also restrict access on certain system wise configuration pages.

Disk

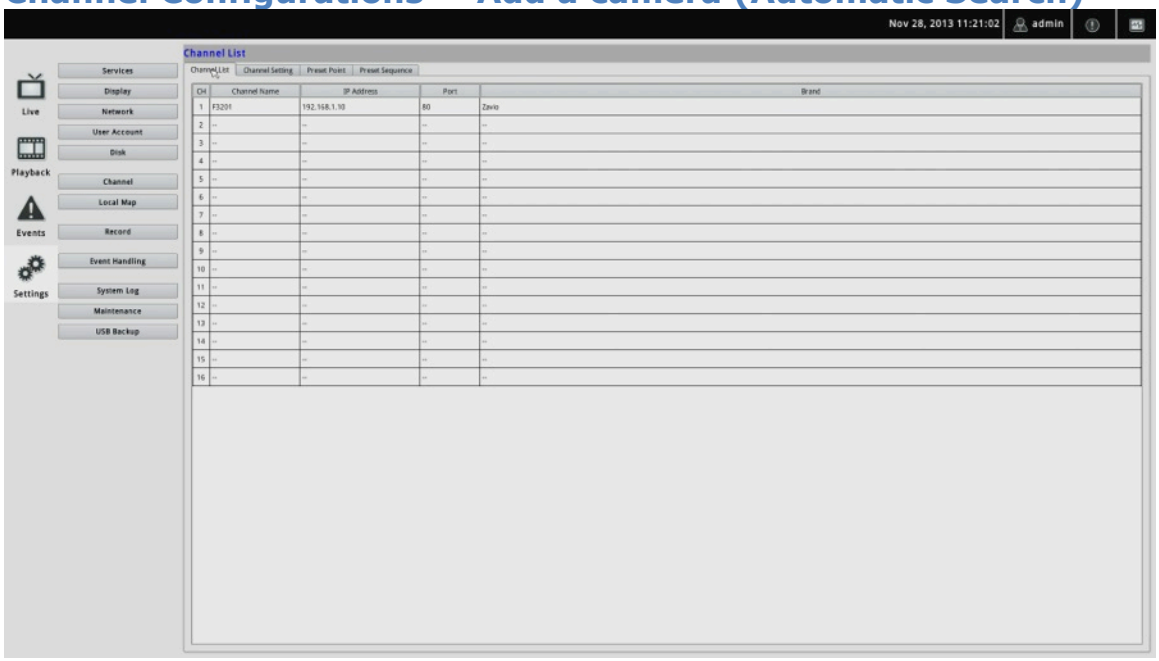


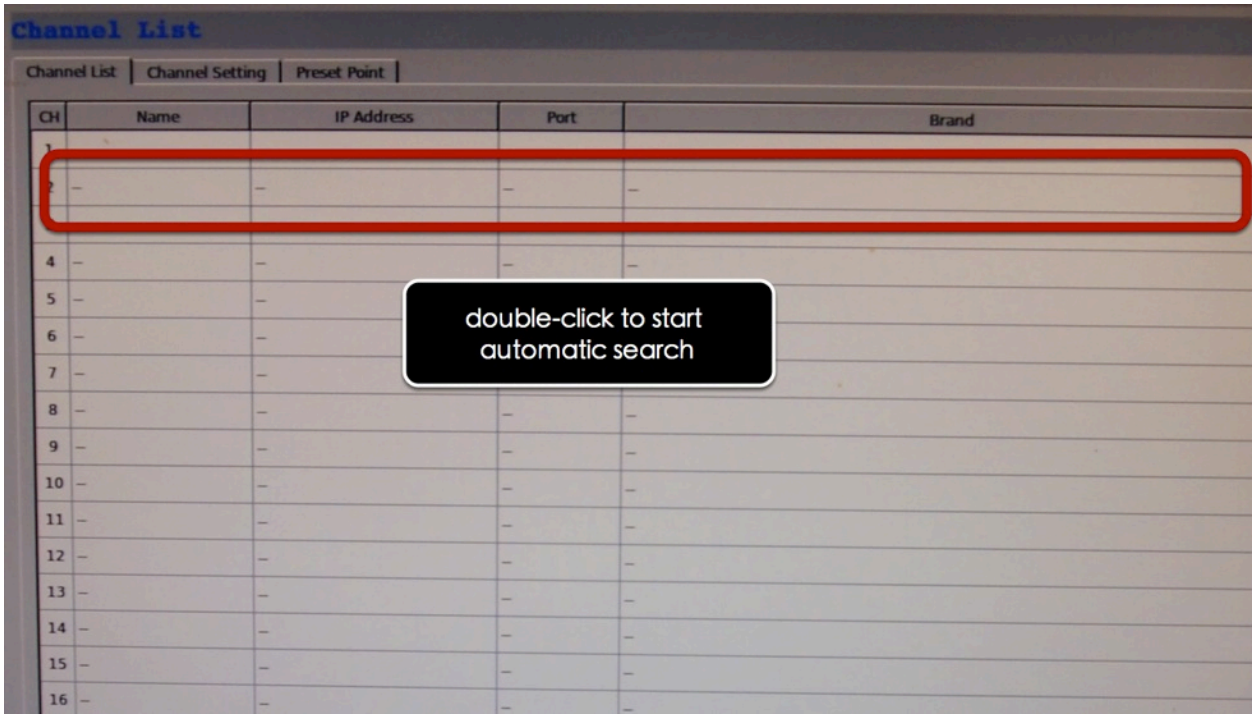
Once you install a new hard disk to the recorder, it will be listed in this page and shown status "offline. You would need to initialize it so that it can be ready for recording. You can obtain basic information about the disk you installed in this page.

To initialize it, simply click the "Format" button.

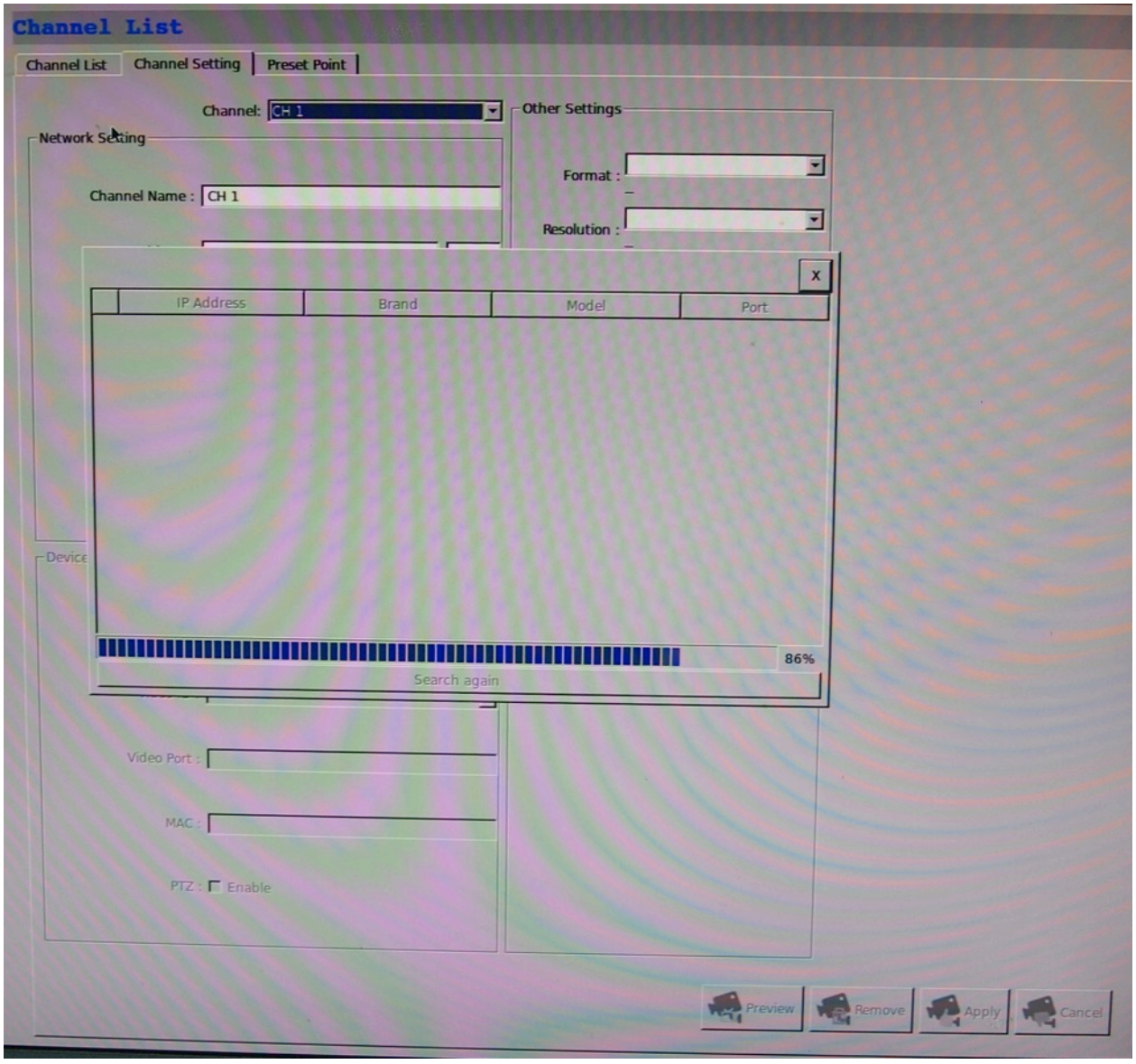
**This page will list the Internal disks (or RAID volumes), and the E-SATA disk only. The HDD will be formatted in EXT3 file system.*
**The USB HDDs will only be listed in the "USB Backup" page. The USB HDDs have to be formatted in advance in FAT16/FAT32 or EXT3 file system. (FAT32 is recommended)*
** The internal disks that are formatted in EXT3 or FAT32 elsewhere will be listed in this page and shown as "Online" after they are installed to the NVR. It's highly recommended that it's formatted by the NVR, which will be formatted to EXT3 file system to ensure best performance. FAT32 can be used but will result in a performance slowdown.*
** HDDs formatted in file systems other than EXT2/3, or FAT32 will not be listed, and therefore cannot be used.*

Channel Configurations -- Add a camera (Automatic Search)

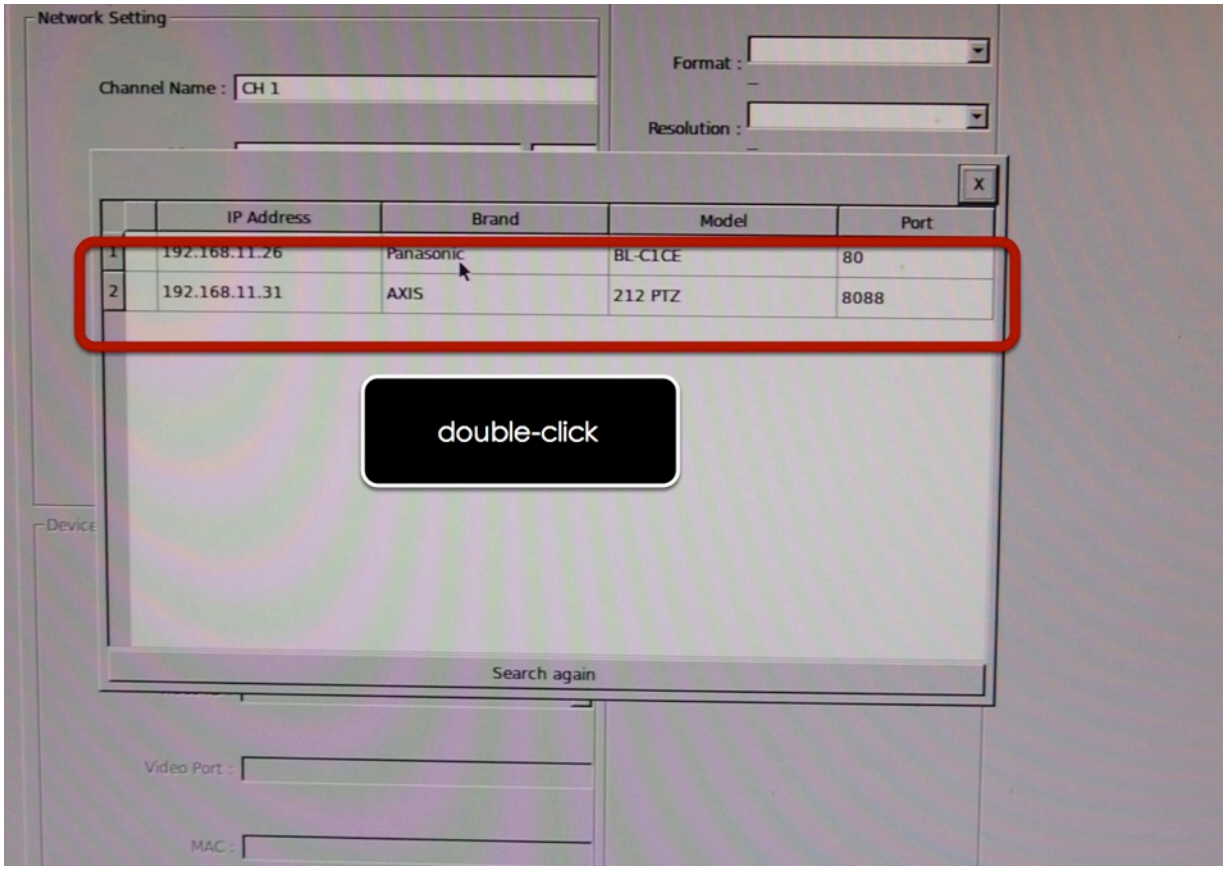




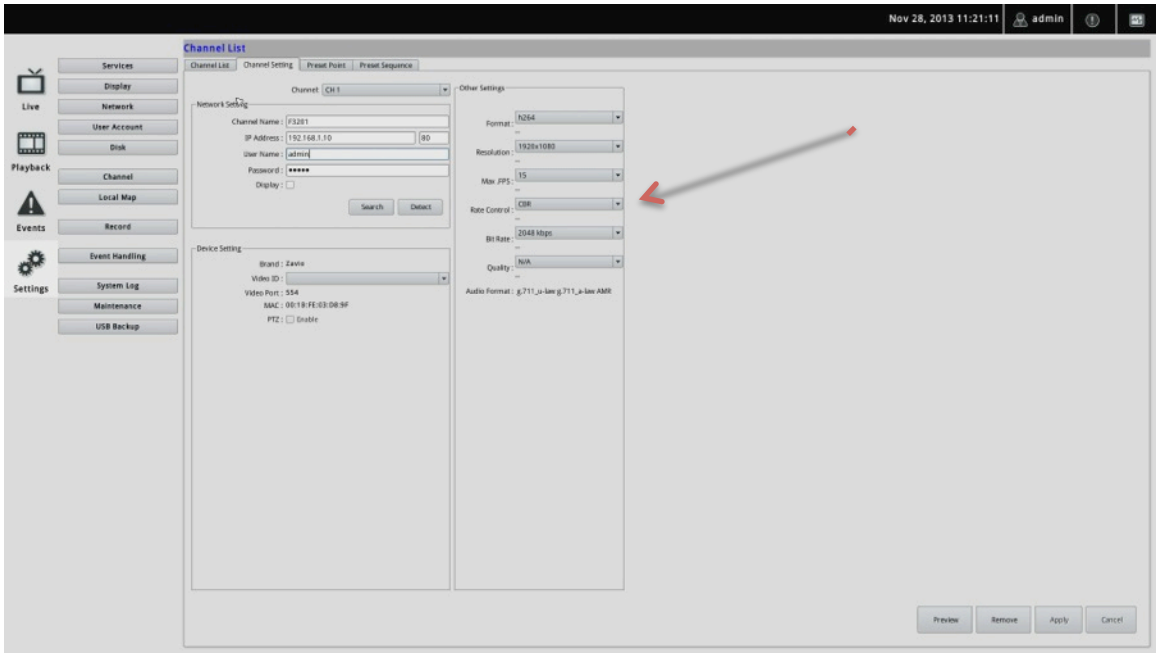
The NVR provides two options for adding a new camera. Users have the option to let the recorder automatically find the cameras or it is possible to enter camera's information and add it manually. You will be greeted with the "Channel List" page when you first enter the "Channel" configuration page. Simply double-click on any channel in the list to start automatic search and add camera to that channel.



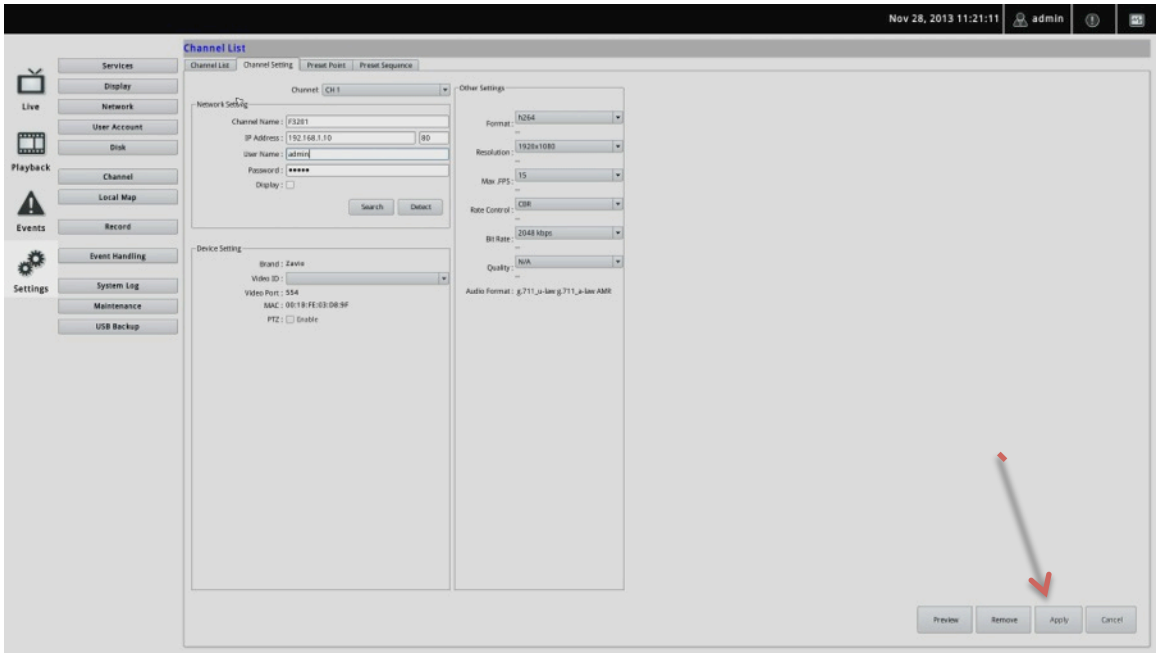
The progress will be displayed, and you will be switched to the "Channel setting" page for more configurations.



Double-click on one from the search result to add it and for more detail configurations

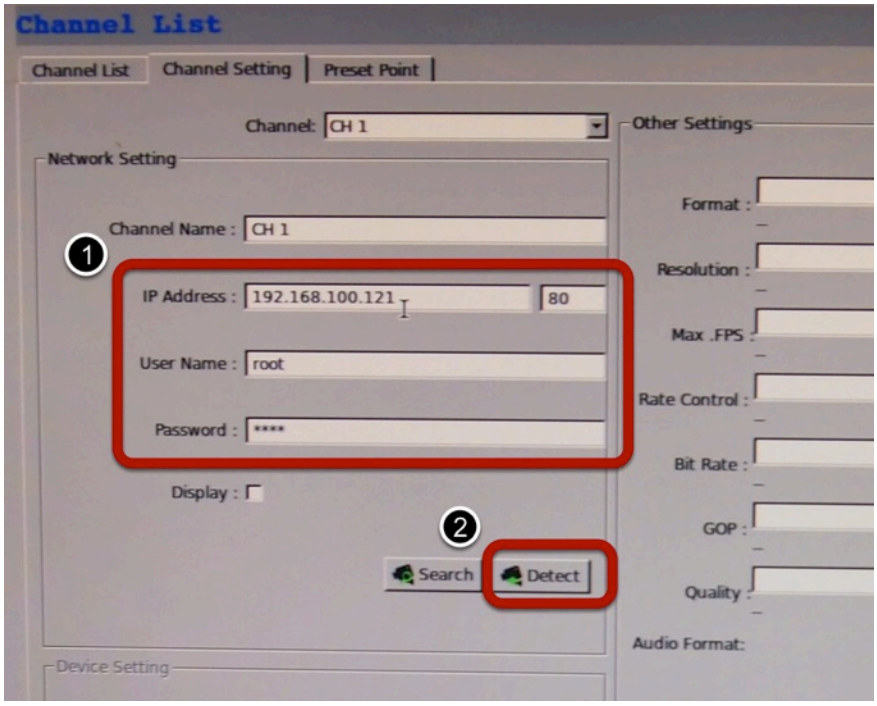


The camera's current settings will be displayed on the right and you can adjust settings such as "Format", "Resolution" or "FPS" before adding it to the NVR.

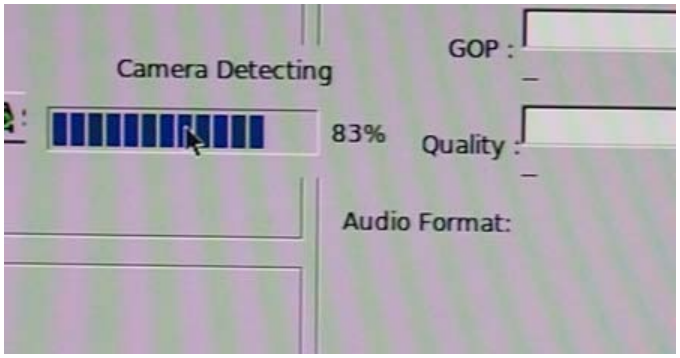


Click "Apply" to finish and save the settings.

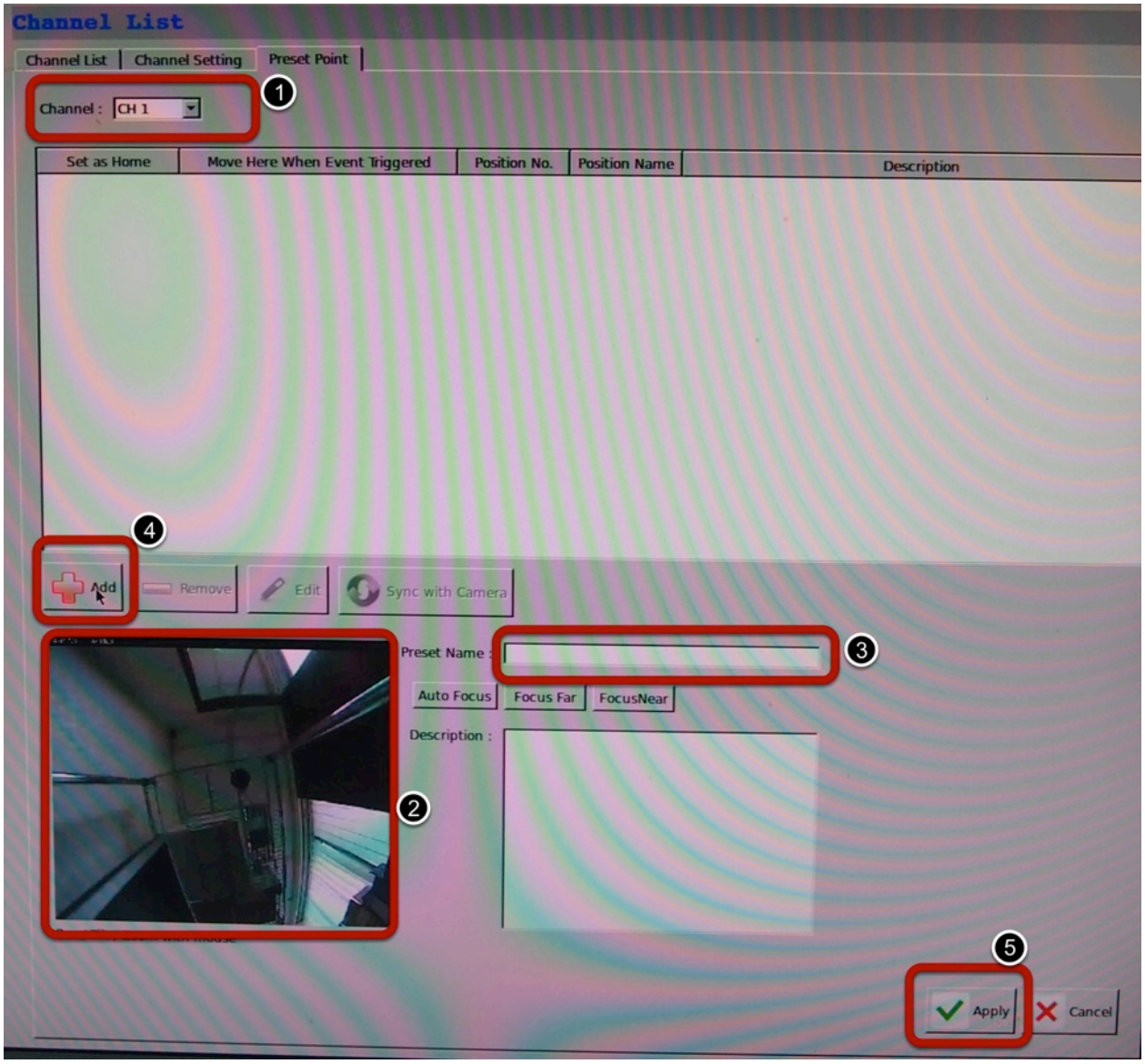
Channel Configurations -- Add a camera (Add manually)



To add a camera manually, go directly to the "Channel Setting" page, and enter the camera's IP address, HTTP port, username and password. Click "Detect" to retrieve camera's settings.



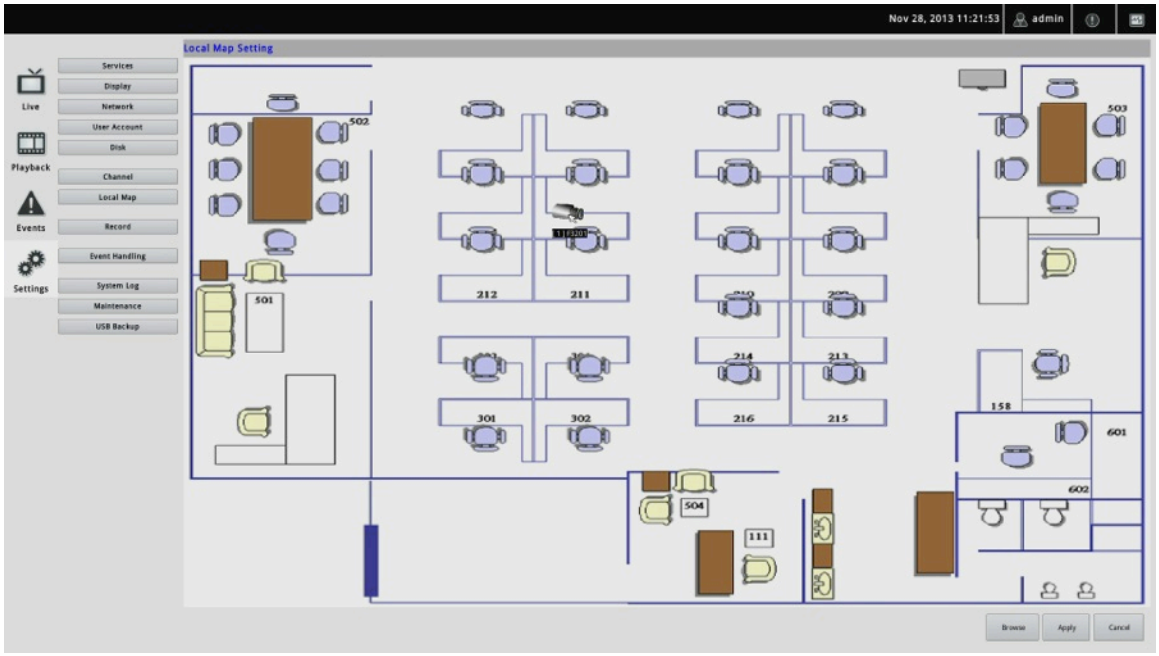
The progress will be displayed. Once it's successfully detected, follow the procedures described in the previous section to finish configuring and adding camera to the NVR.



You can create up to 8 preset points for each channel if it's a PTZ-capable camera. To add a preset point:

1. Select a channel from the "Channel" list and its video will be displayed at the lower-left hand corner.
2. Click on the video to change its pointing direction.
3. Assign a name to this preset position.
4. Click "Add" to add it.
5. Click "Apply" to save the settings.

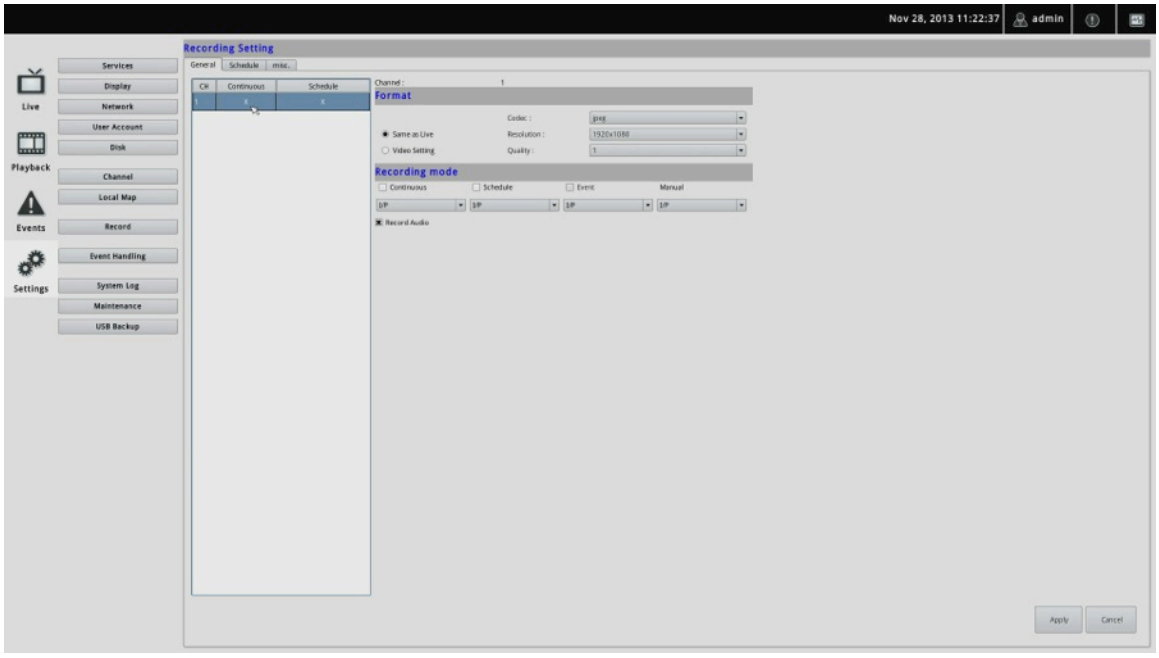
E-Map



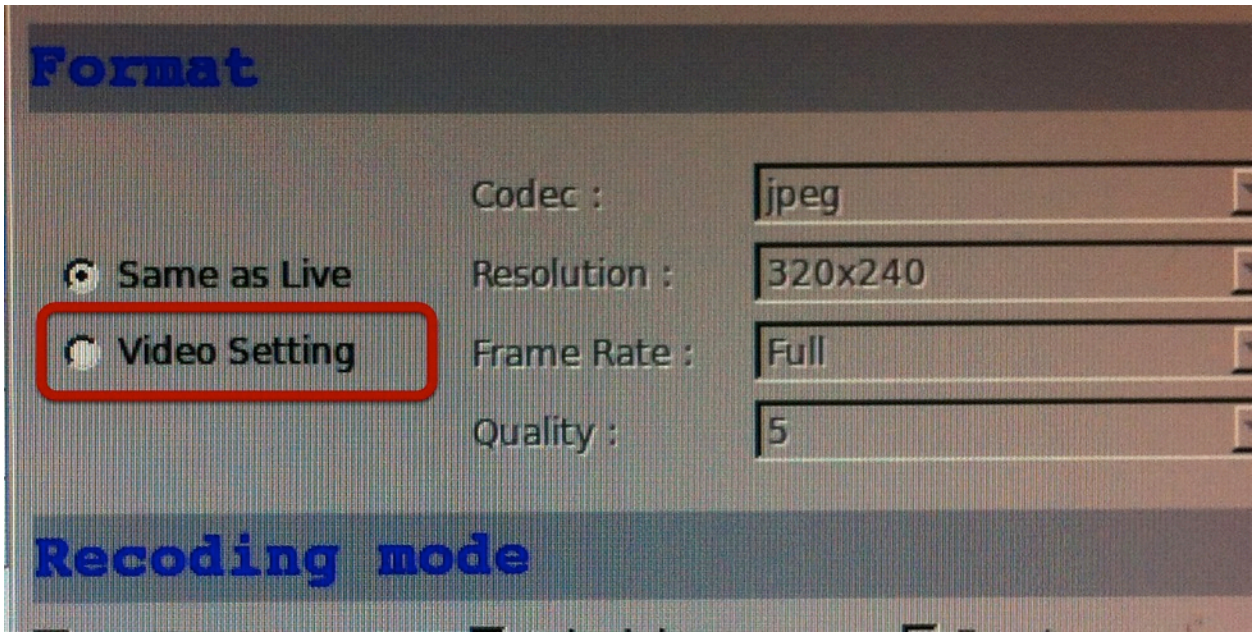
E-Map monitor is a function that alerts users whenever there is an event triggered (e.g. motion detected) from a camera with a geographical perspective. With this function, users can quickly identify which camera has detected an unusual event and where this event is happening. This function works by incorporating the event detection function as well as the recording function, which, as a result, helps users take all the necessary actions when an unusual event occurs.

The E-Map setting page in the local UI only allows you to configure the position of each camera (by using drag and drop). For detail settings such as changing the E-Map image, please do so in the web configuration UI.

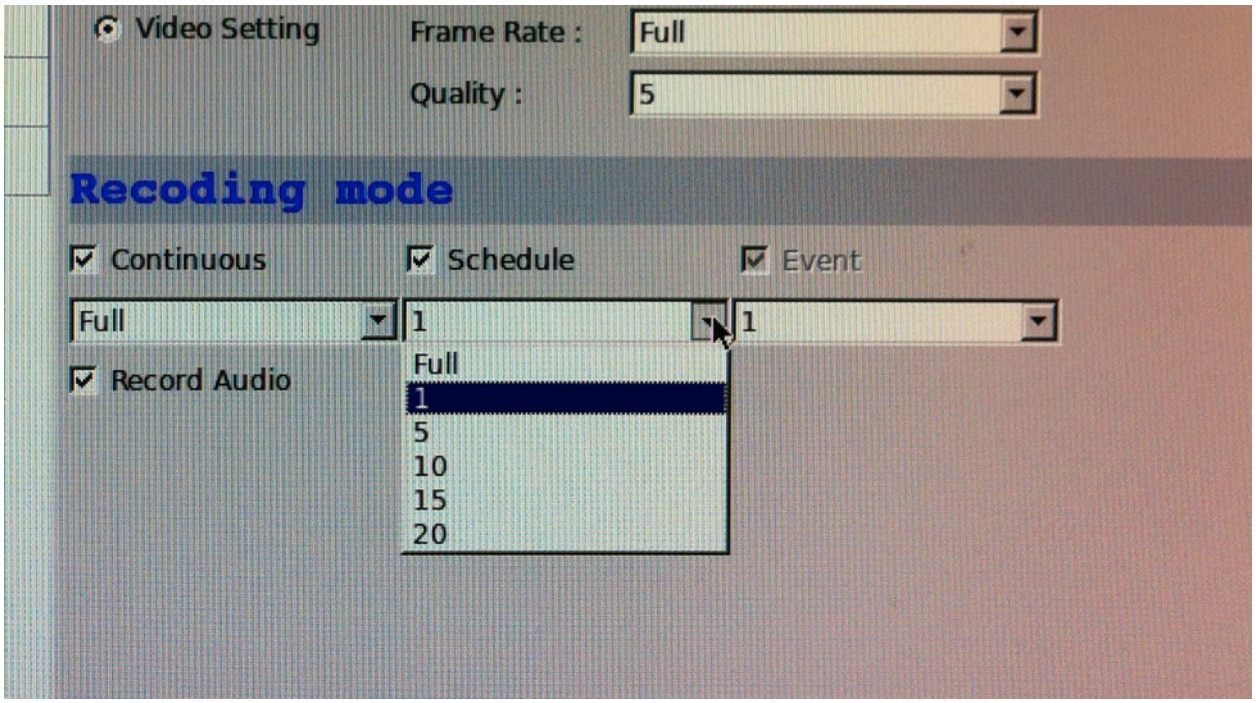
Recording



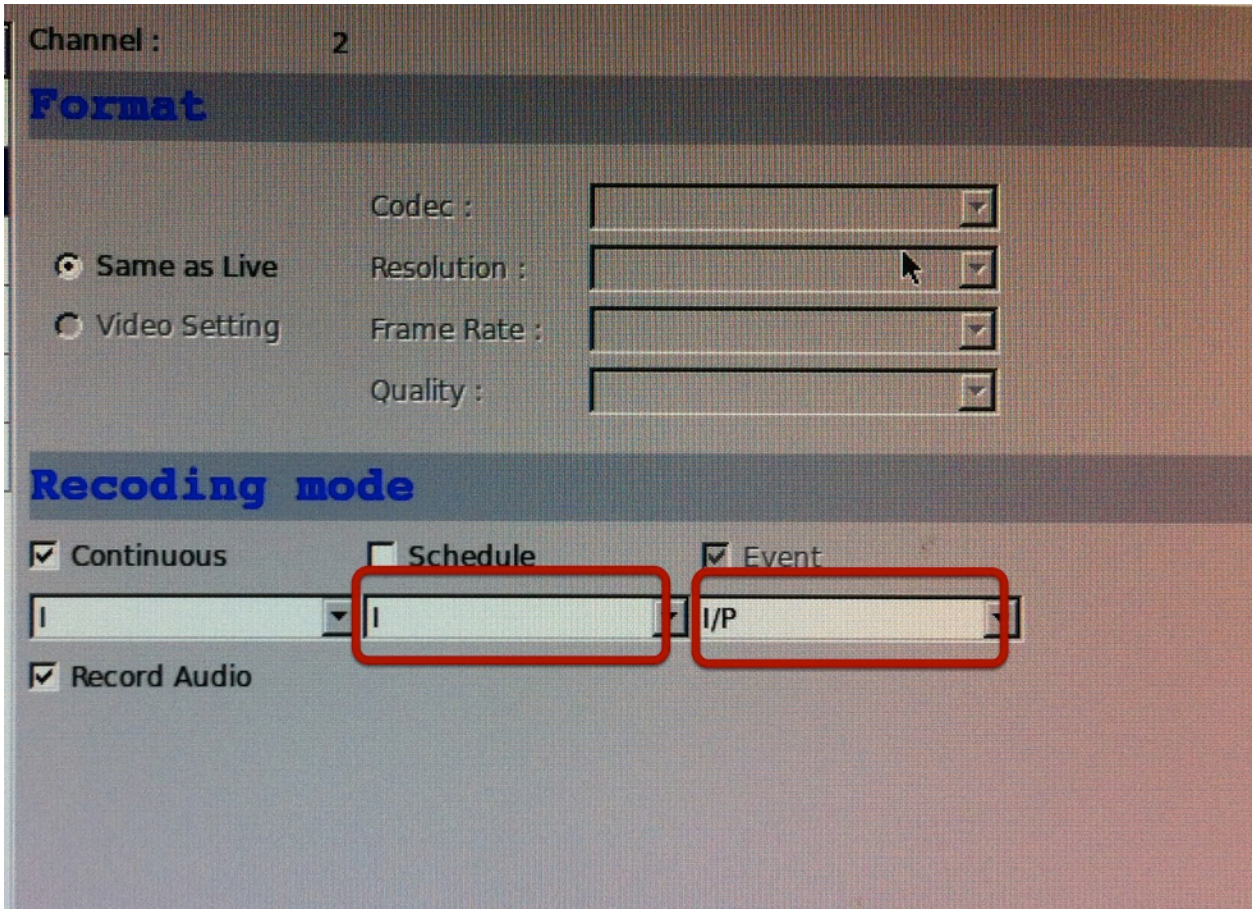
The "recording configurations" gives users the overall control of how and when a recording is performed and the quality of different types of recordings that will be performed on each channel. It can help the NVR to operate with sufficient system resource by performing recording only when it's necessary with adjustable recording frame rate. The NVR supports displaying live video and recording with different video quality settings or format if camera supports outputting multiple video streams.



You can tell that you are configuring a multi-stream capable camera if the "Video setting" option is available.

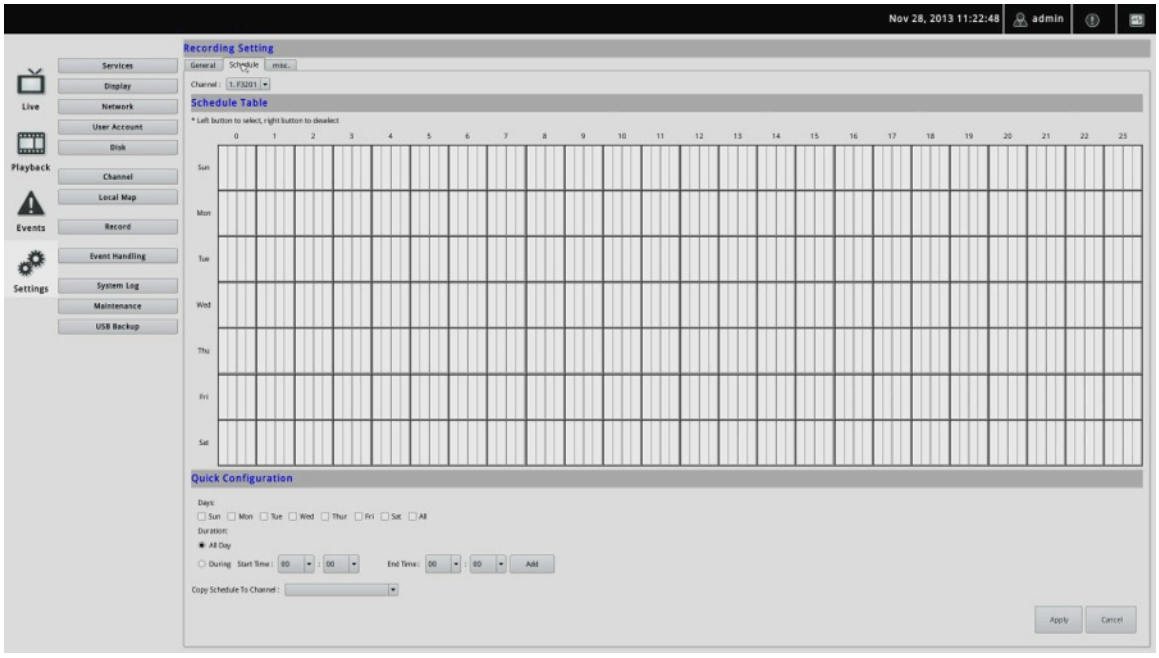


You can further configure the recording frame rate for different types of recording, and choose whether to record audio or not.

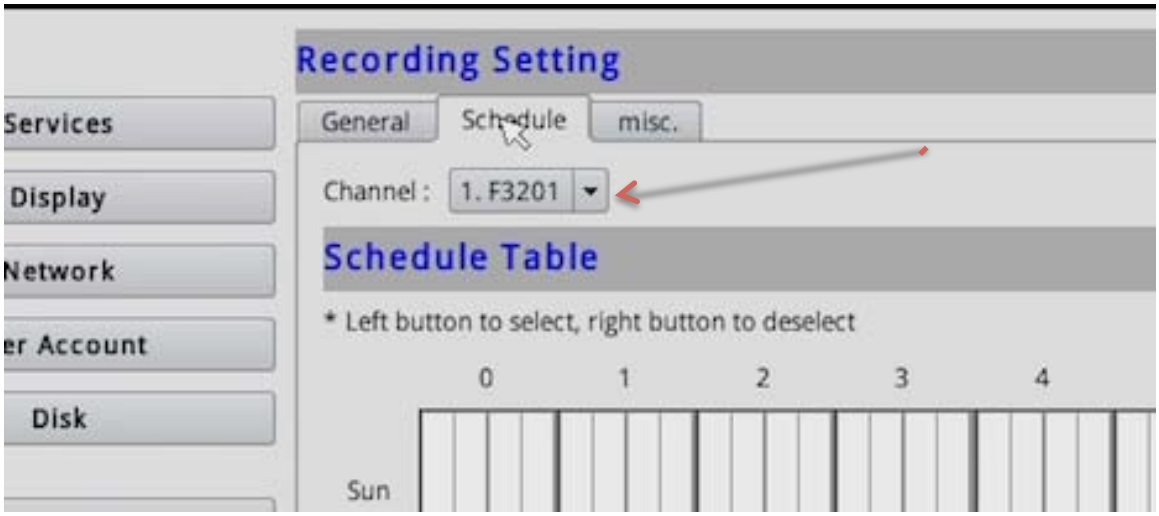


You will be given with options to record i frame only or i+p frames if the recording format is MPEG4 or H.264.

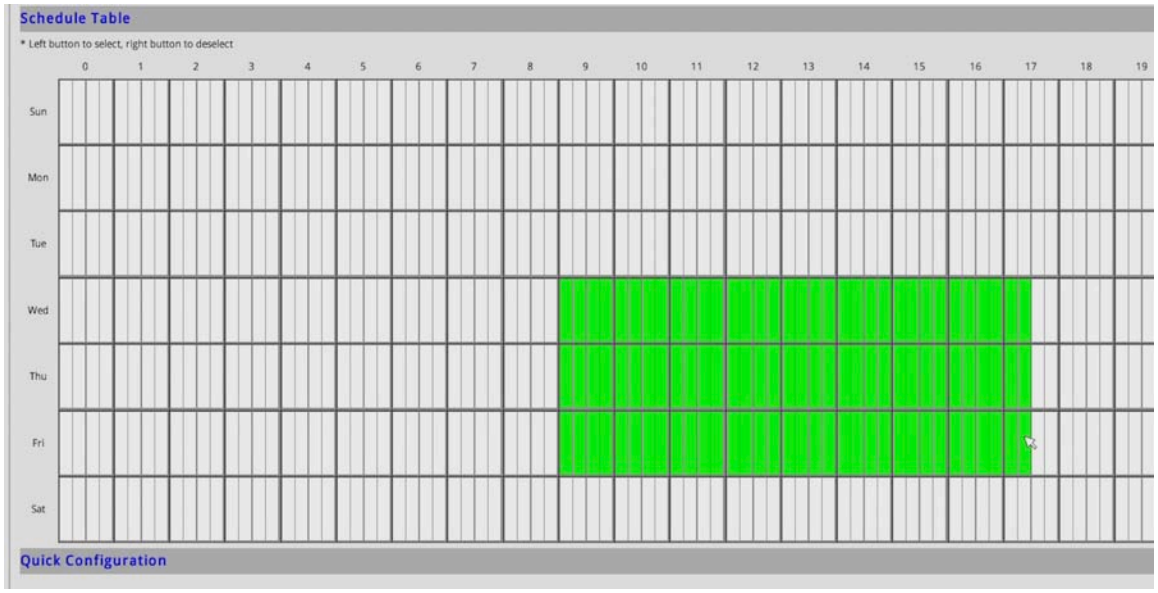
Schedule Recording



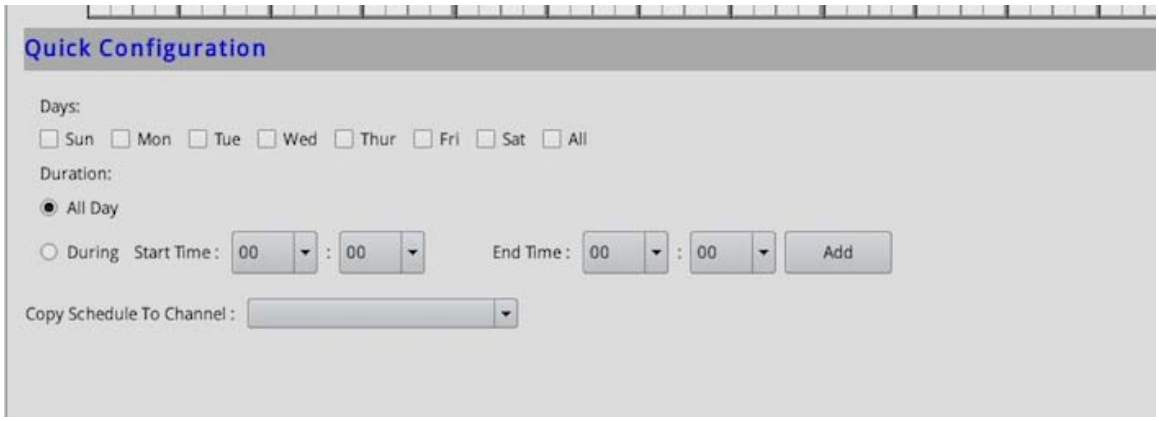
In the "Schedule" page, you are able to configure the NVR to recording during a particular time frame for each channel.



Start by selecting a channel for configuration from the upper-right hand corner.

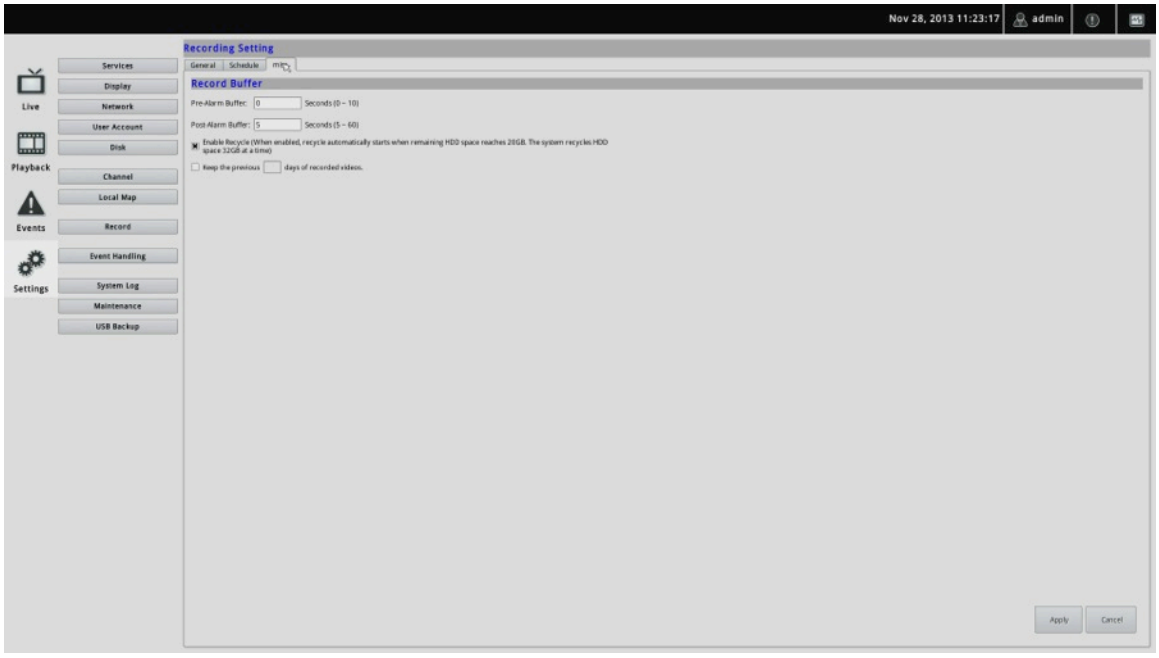


Use the schedule table to define recording time frame. Each cell box represents 15 minutes. You can click one to select or click and hold down the mouse left button and drag horizontally to select consecutive hours of a particular day, or drag vertically to select a particular hour for multiple days.


Quick Configuration
Days:
Sun Mon Tue Wed Thur Fri Sat All
Duration:
All Day
During Start Time: 00 : 00 End Time: 00 : 00 Add
Copy Schedule To Channel :

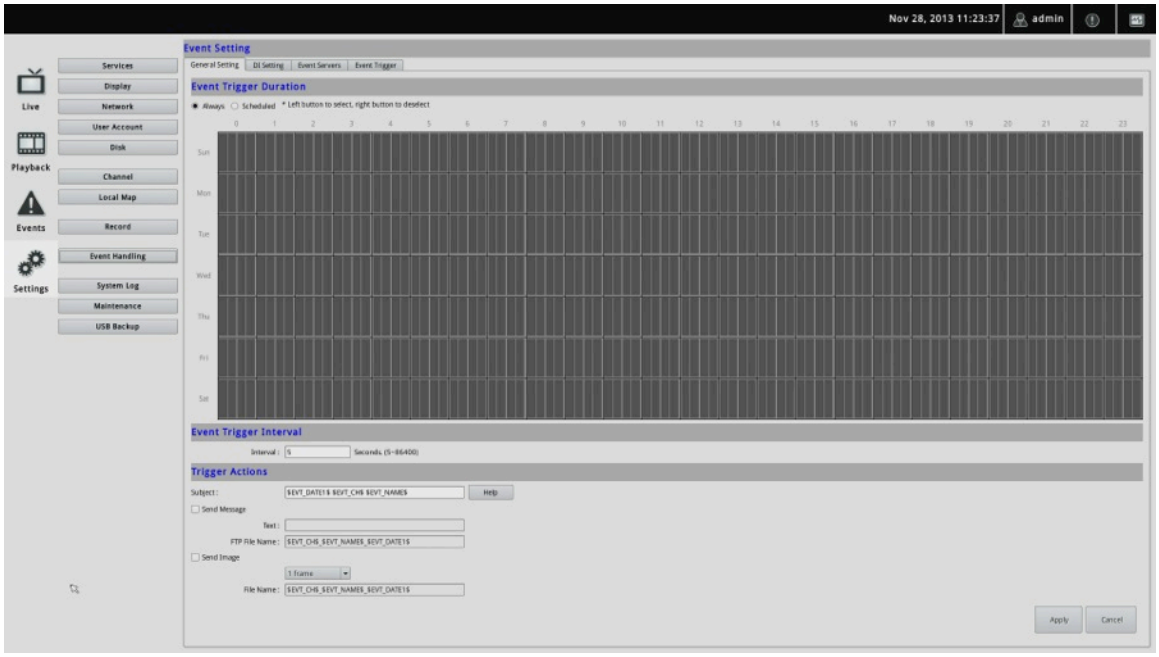
You can also use the options in the "Quick Configuration" section to quickly define the recording time frame without using the schedule table.

Record Buffer



The record buffer allows you to set the NVR to start recording with a certain period of time before and after an event trigger.

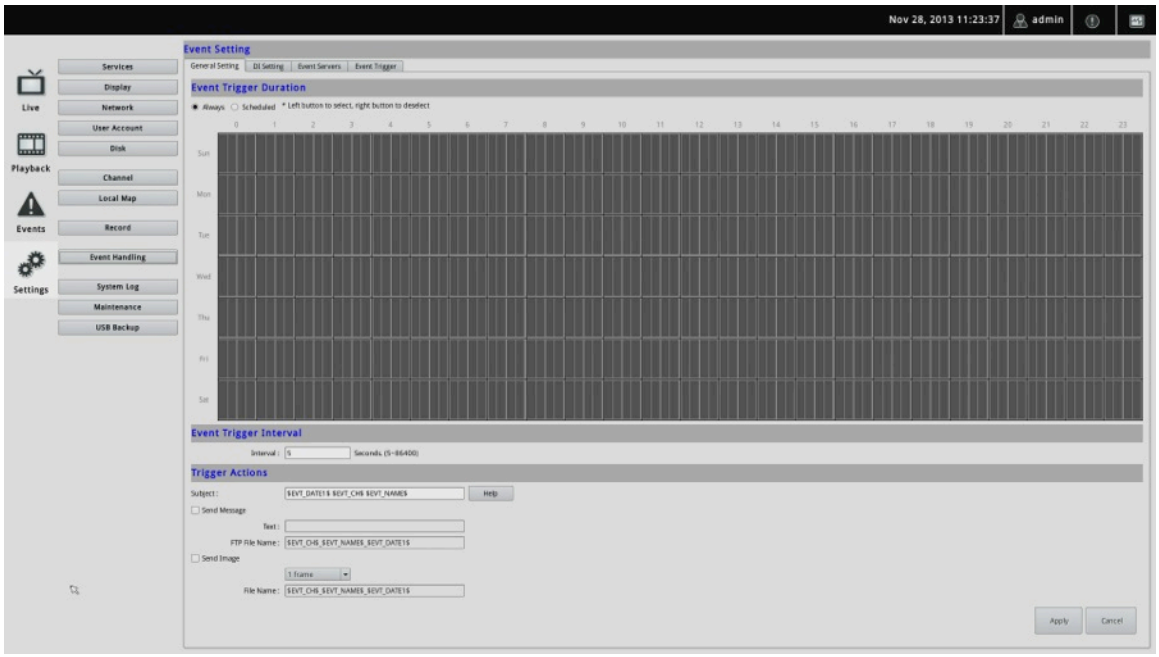
Event Handling



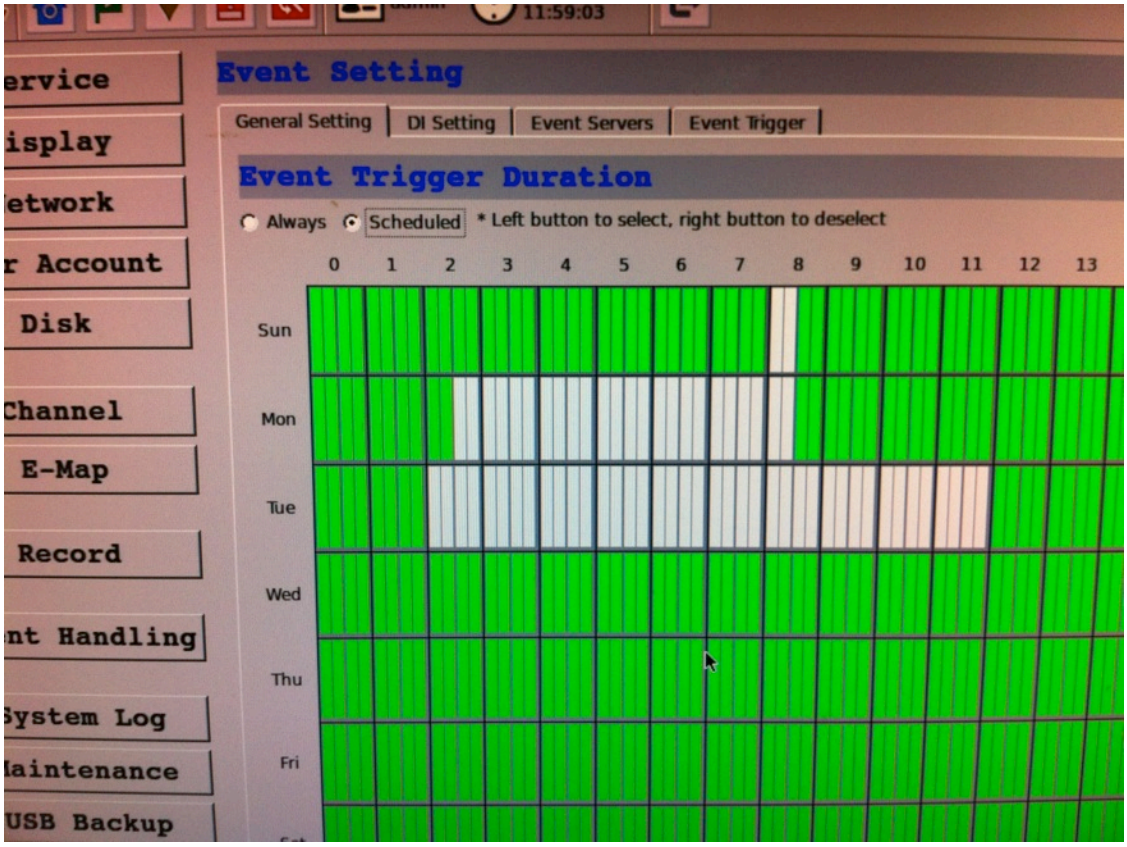
The "Event Handling" section allows users to define conditions that constitute an event, its corresponding trigger action and when it will

be triggered. Such setting can reduce the management overhead and notify the administrator only when it's necessary.
The general settings section can help you quickly configure when an event is triggered, how often events are triggered and the corresponding actions when events are triggered.

General Setting

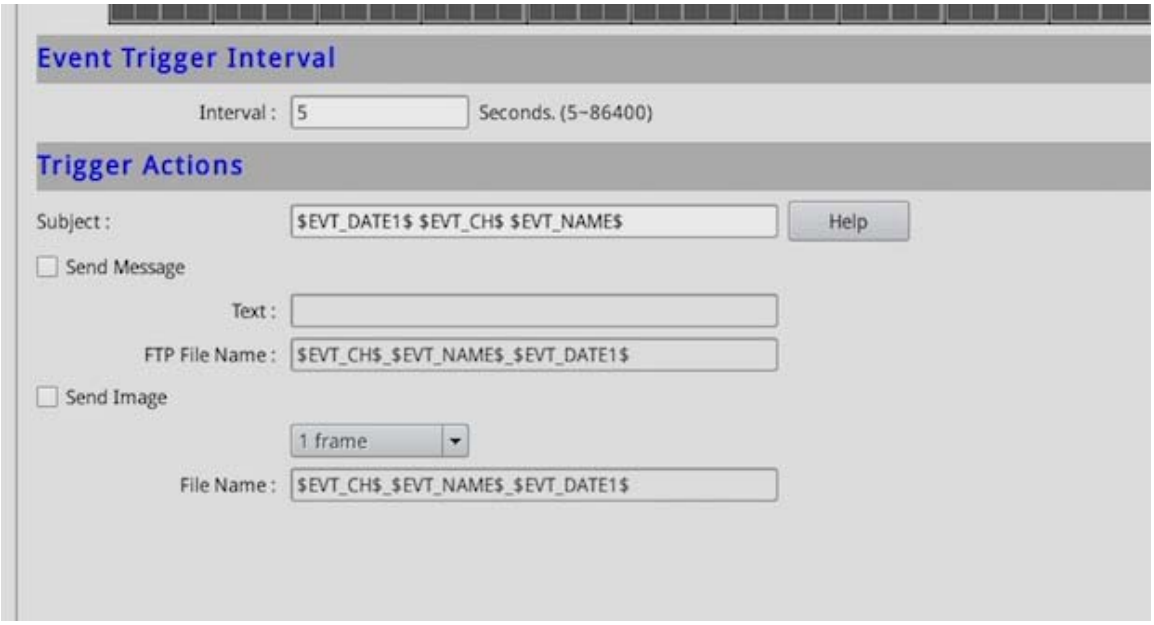


Start the configuration by defining the general settings:
Define when an event will be triggered
• Choose "Always" or "Scheduled" under "Event Trigger Duration"



• For the "Scheduled" option, use the table to define a range of time if you would like events to trigger corresponding actions only during a certain period of time.

** Use the mouse left button to select and the right button to deselect.*
** You can click and hold down the left button and drag horizontally to quickly select consecutive hours of a particular day, or drag vertically to select same time for multiple days. Drag diagonally to select consecutive hours/days at once.*
** Each cell box represents 15 minutes of time.*



How often an event is triggered

• Set a time interval under "Event Trigger Interval" to define how often events are triggered

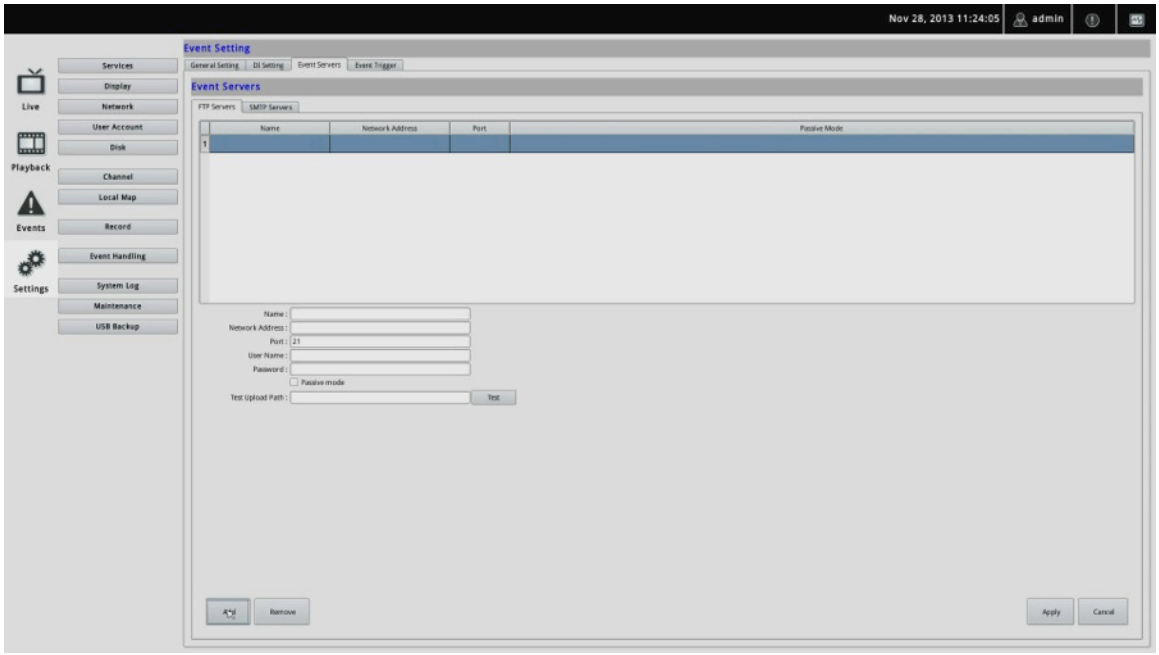
Trigger action

Now that you have the event trigger duration and interval defined, choose what action to be taken during an event trigger:

• You can choose to have the recorder send out the first few frames of the video recorder upon an event is triggered

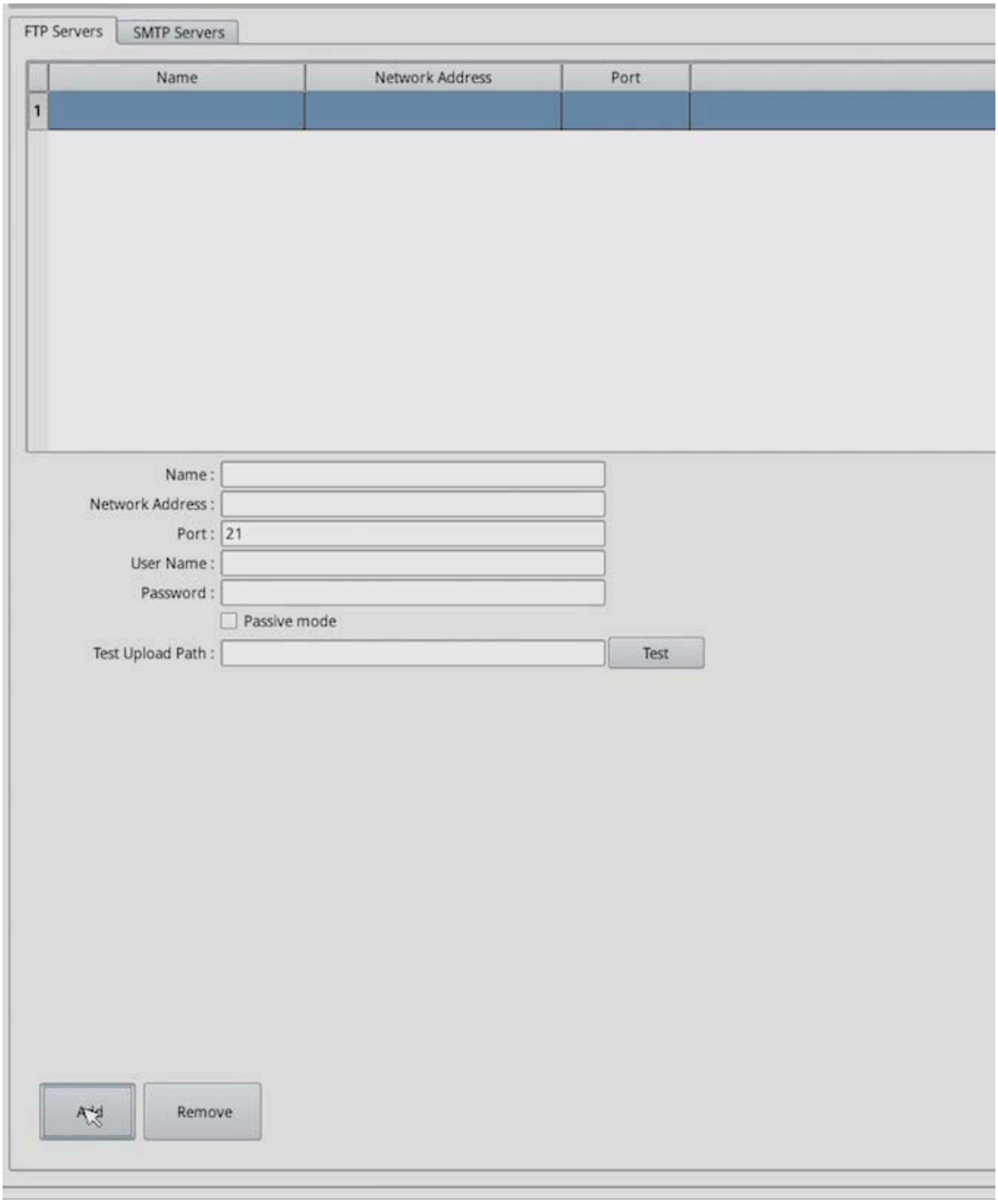
• You can also choose to have the recorder send out a warning message in e-mail or in txt file format and upload it to an destined FTP server

** The image(s) that are uploaded to the destined FTP server or emailed to a destined mail recipient are in their own proprietary image file format (.h4i or .p4i), which can only be opened by the NVR media player.*



Event servers are to be used with event trigger actions. In case of unusual motion detected by the camera or a disk failure, the recorder can send notification with the acceptable format (image/txt) to a destined event server according to the configuration.

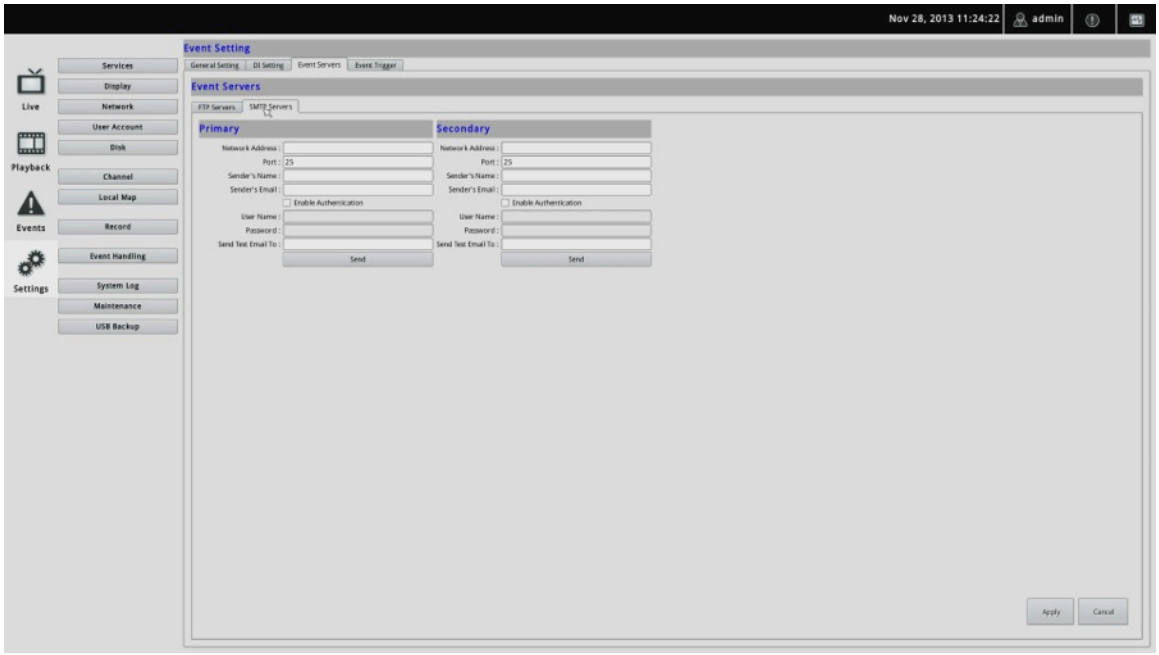
FTP Servers



To add an FTP server,
1. Click "Add" to begin:
2. Start by giving a name to the server that you are adding to the recorder
3. Enter the hostname or the IP address of the FTP server
4. Enter the communication port of the FTP server (usually port 21)

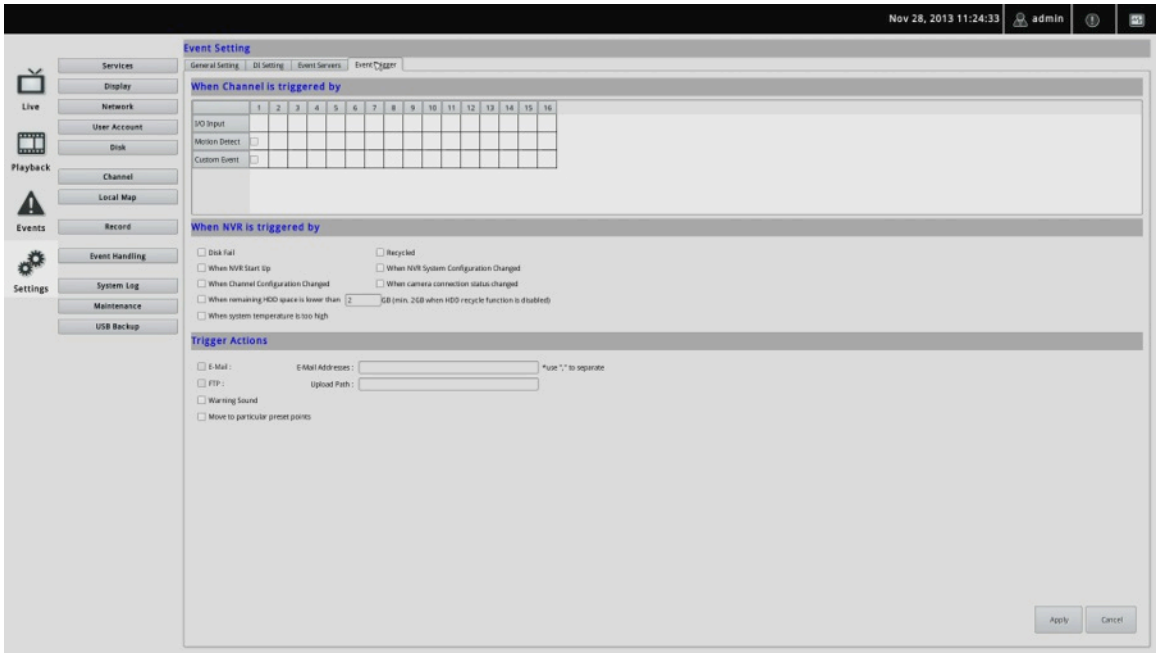
5. Enter the username and password of the FTP server if it's required
6. Check "Use Passive Mode" if it's required or leave it unchecked to use active mode
7. Click "Test" to verify if all information is entered correctly and the connection to the FTP server can be established successfully
8. Click "Apply" for the settings to take effect

SMTP Servers



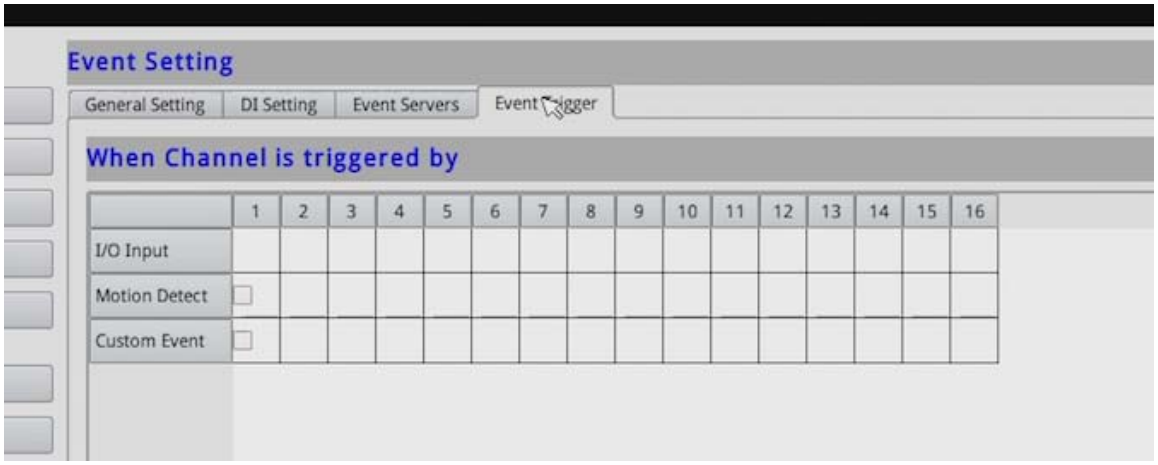
1. Enter the hostname or the IP address of the SMTP server 2. Enter the port of the SMTP server
3. Specify the sender's name in the "Sender's name" field 4. Enter the sender's e-mail address
5. Check "Enable Authentication" and enter the username and password of the SMTP server if it requires authentication
6. Click "Apply" to save the configuration

*The NVR supports SMTP servers that use base64 or MD5 authentication methods.



We have finished defining how an event will be triggered and which servers will be receiving notifications in the previous two sections, now we can finish up the event configuration by setting:

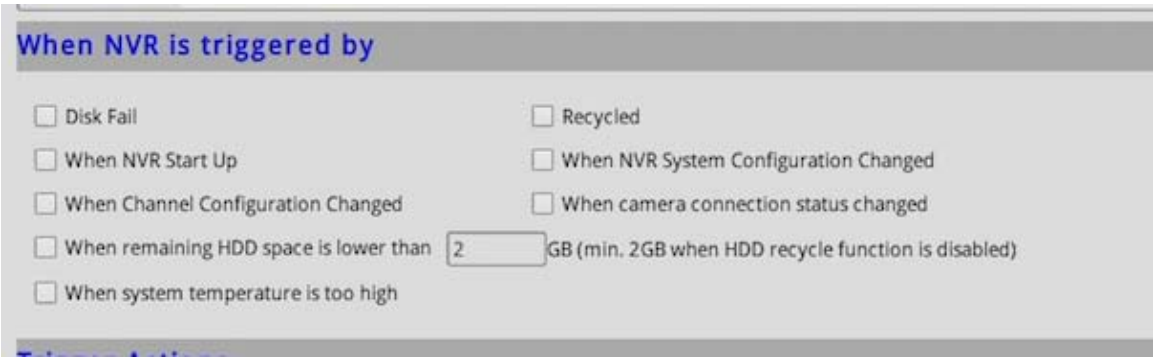
•Which channels will have event trigger function enabled
•Add system events if you will
•Where the warnings will be sent to and how they will be sent.



Use the checkbox to enable event trigger on the desired channels.

**Once motion detection is enabled in this page, please configure the motion area and enable motion detection in the corresponding channels (cameras) from* camera's *own web UI*. The NVR only detects the first motion area set in the camera. The NVR recognizes the first motion area by its ID number set in the camera.

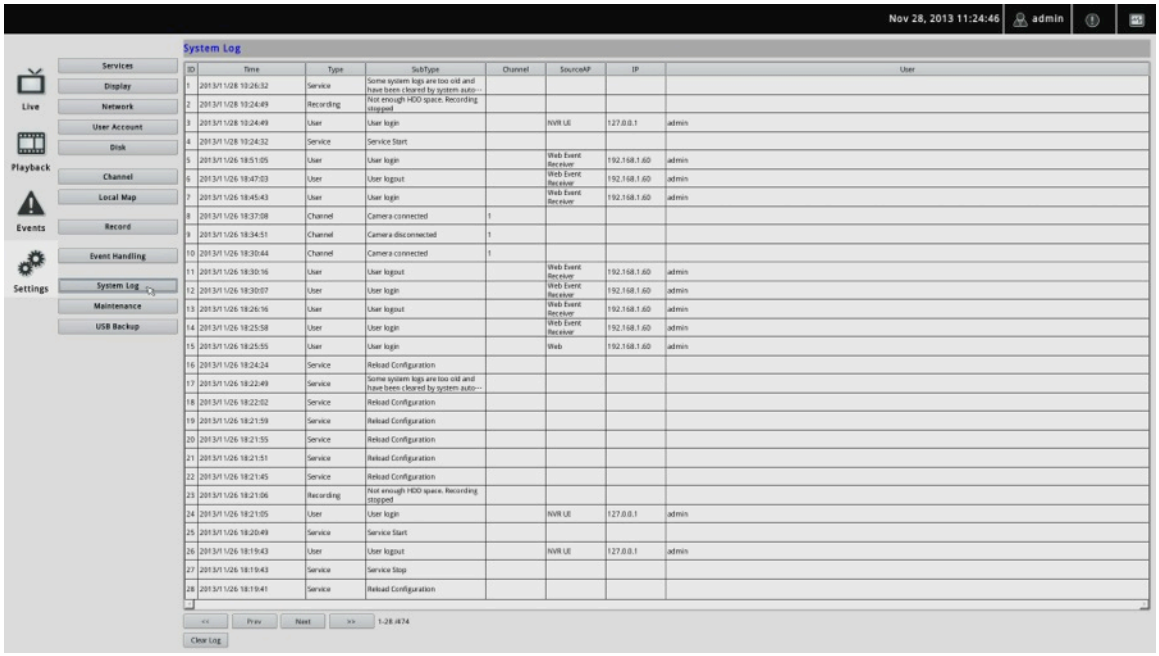
* Grayed out checkboxes represent the function that is either not available on the camera, or the event notification method used in the camera is not supported by the NVR.
* Enabling "Custom Event" allows events from the CMS software to trigger the NVR to start recording.


When NVR is triggered by
Disk Fail
Recycled
When NVR Start Up
When NVR System Configuration Changed
When Channel Configuration Changed
When camera connection status changed
When remaining HDD space is lower than
2
GB (min. 2GB when HDD recycle function is disabled)
When system temperature is too high

Define which system events should trigger the recorder to send out notifications if you will.

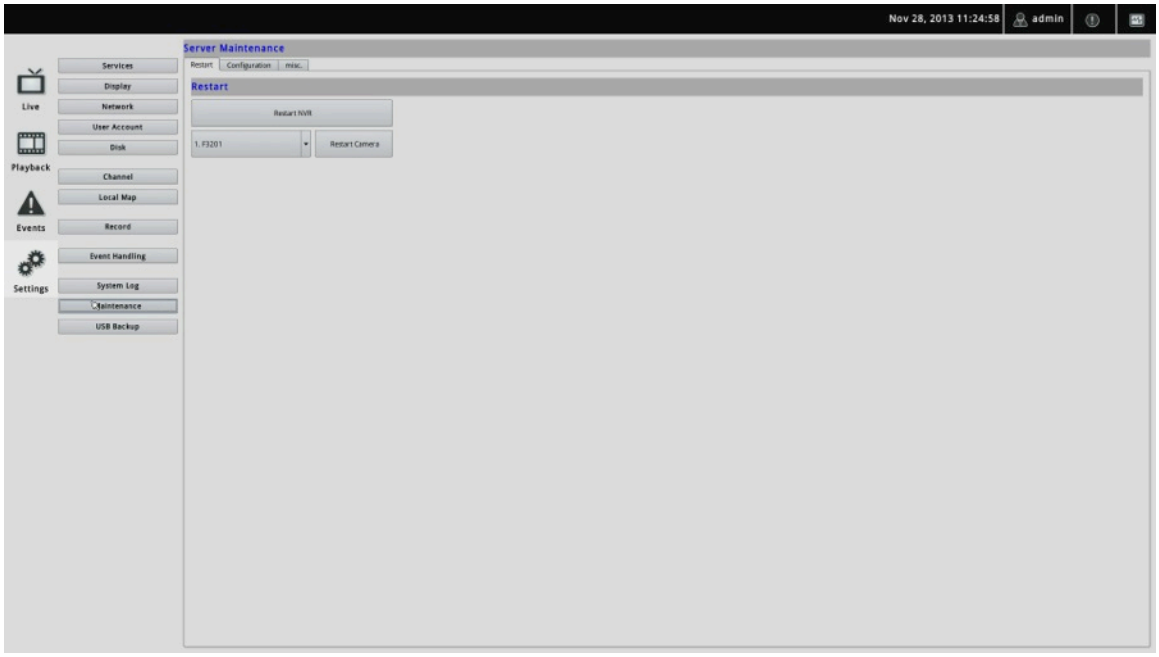
Define how the notifications will be sent and where they will be sent.
• *Event trigger may not work for cameras that are placed outside of your local network or on the Internet until the "UPnP Port Forwarding" is enabled in both the NVR and the router.*

System Log



"System Log" keeps a record of what's been happening to the device and provides basic information for troubleshooting.

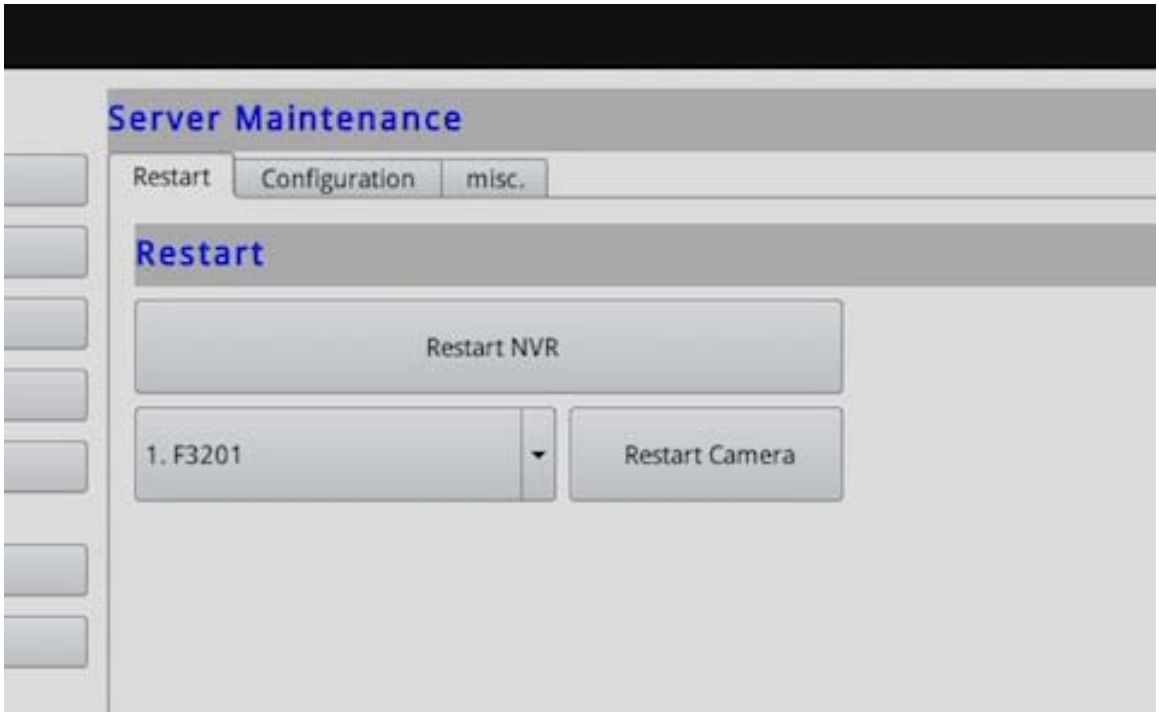
Maintenance



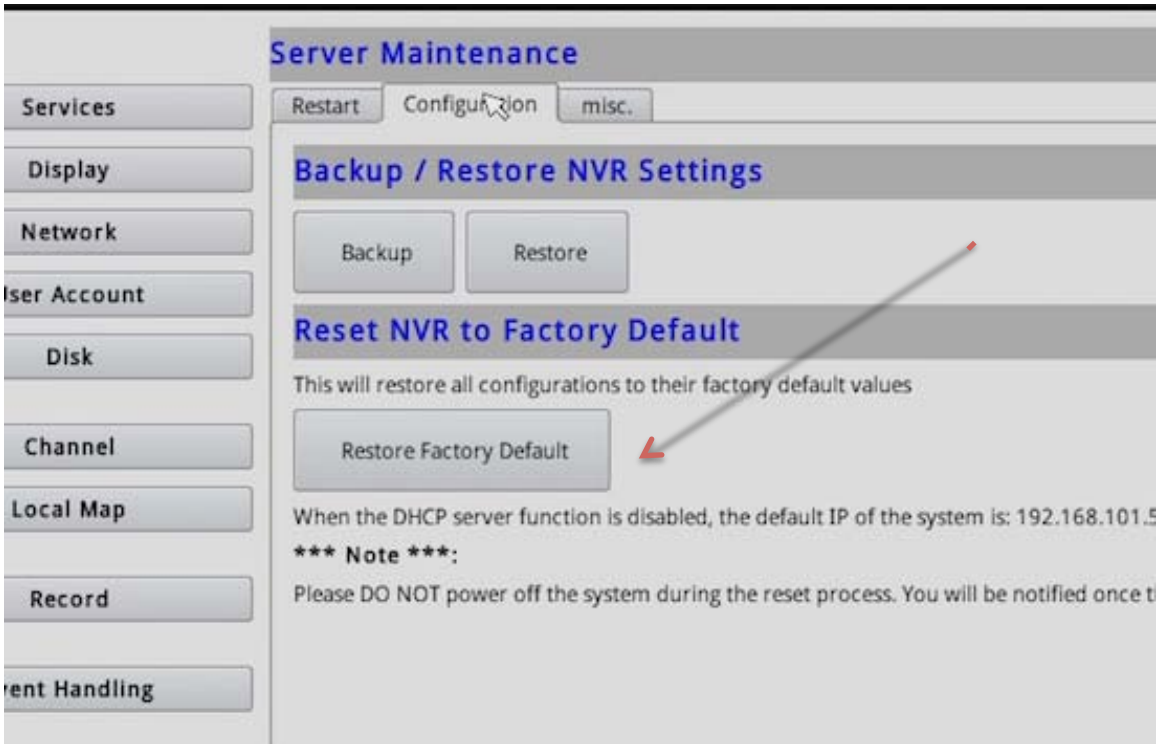
"Maintenance" provides functions for users to:

- Reboot the NVR when necessary

- Reboot cameras directly from the NVR
- Perform Firmware Upgrade
- Backup the NVR's settings to a local hard drive
- Restore the NVR's settings from a previously saved configuration file
- Reset the NVR's settings to their factory default values

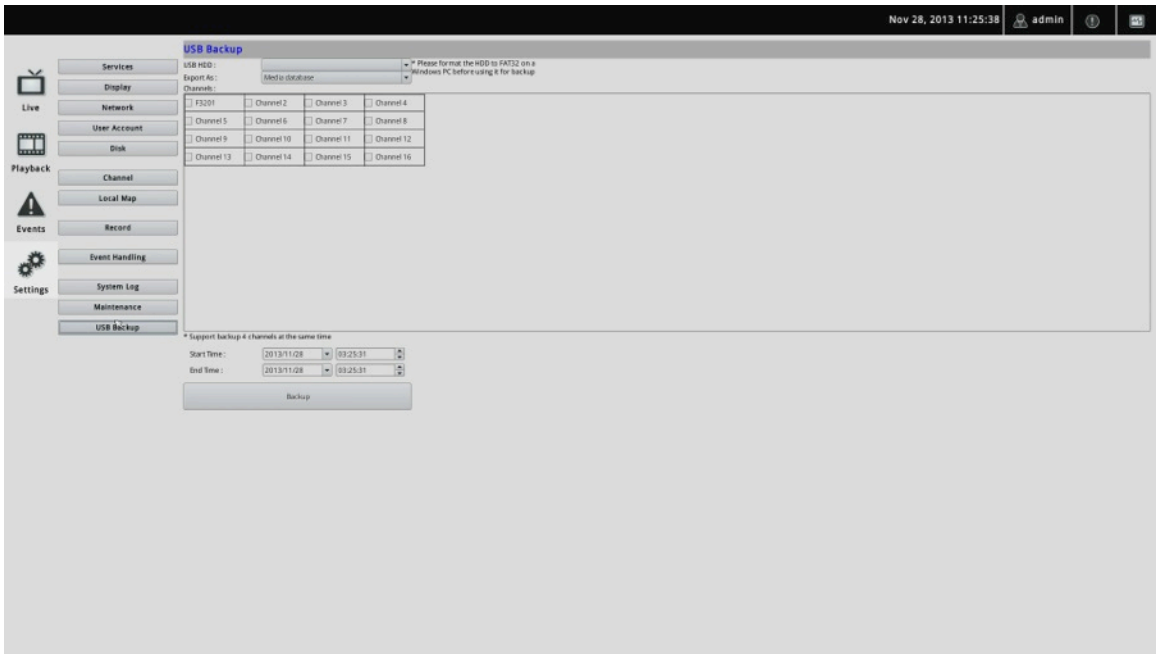


The configuration can be backed up to or restore from a USB disk. It is required to plug in a USB disk formatted in FAT32, EXT3, or EXT4 prior to using the backup and restore functions.

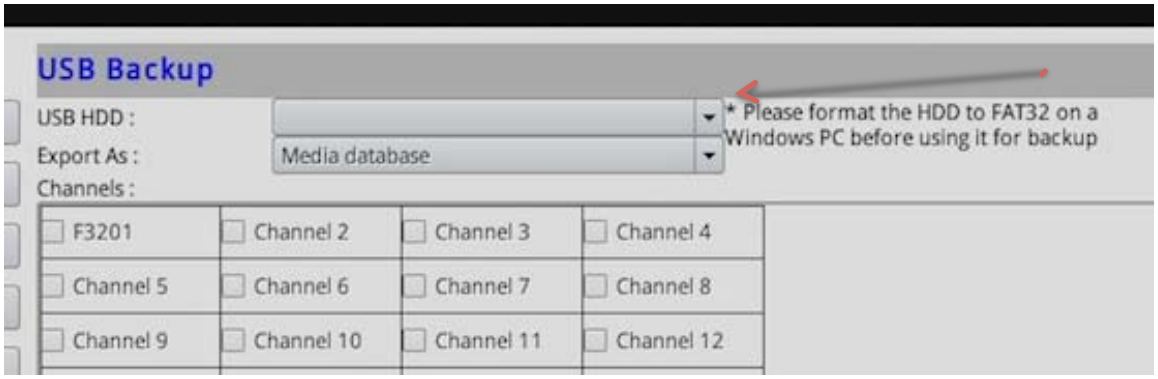


To reset the recorder back to its factory default, click "Restore Factory Default" button and begin the process.

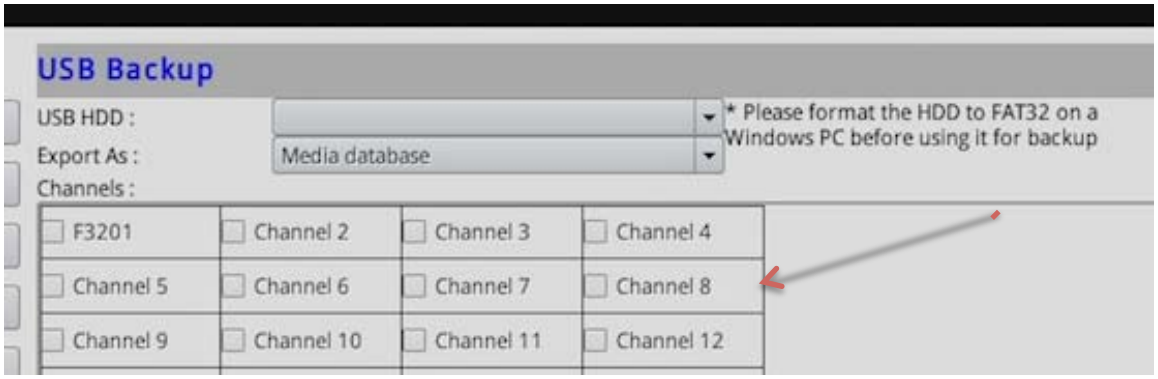
USB Backup



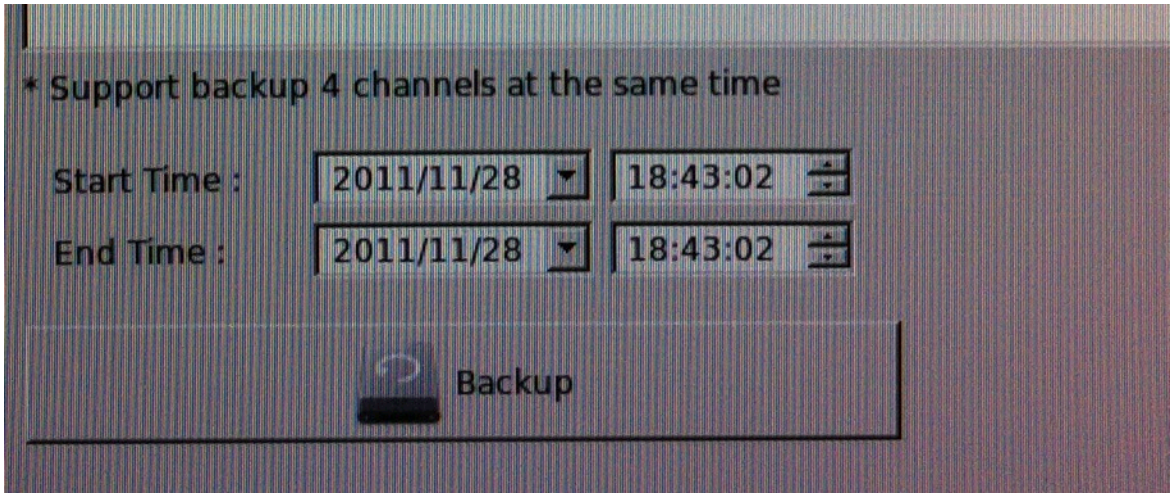
It's a function that allows users to backup the recording data in its database file format as well as in AVI to the externally connected USB hard disk.



The USB hard disk(s) will be listed in the drop-down menu displaying the remaining disk space. Make your selection from the drop-down menu if you have more than one disks connected to the NVR.



Next, select channels which you would like to backup the recording data from. Maximum 4 channels can be selected at once.



Configure the start and end time of the recording data you would like to backup and click the "Backup" button to begin.

Things to pay attention to the USB Backup function

Limitation:

• It does not support USB Hub extend the number of HDD connected to the NVR
• Only one backup process can be performed at a time
• Maximum 4 channels can be selected for backup
• Only FAT32 USB hard disk is supported for backup
• The USB hard disk needs to have more than 100MB remaining space
• If multiple partitions are presented in one disk, only the first partition will be detected and used for backup

Process:

• Progress will be displayed on the UI
• If the backup process gets interrupted, which the process stops at a point of time that is before the "END Time" user defined, such time will be displayed on the UI
• A folder will be automatically created in the USB hard disk with a name format like 0028687831_20100610151515_2010060511 0010_20100606110010 (MAC_backupbuttonclicktime_starttime_ endtime)

Note:

• Please plug in the USB HDD only after the NVR is fully started, or the HDDs will be incorrectly mounted.
• Play the backed up files using the NVR media player.